THE EFFECT OF SIX THINKING HATS TECHNIQUE ON CRITICAL THINKING SKILLS OF 8TH GRADE STUDENTS

Abstract

Our main aim in this study is to investigate the effect of Six Thinking Hats (STH) technique on critical thinking skills of 8th grade students in English language classes. We also aim to improve students’ critical thinking skills, creative thinking skills and reasoning skills in their school and normal life through using STH technique. Our particular case study took place at Yağızlı Secondary School located in Yağızlı Village, Ordu, Turkey. 8th graders took part in the research. We applied this study in the first semester of 2016-2017 academic year. STH technique was applied to students five times related to the units in their textbook according to the curriculum. In our particular case study we used qualitative and quantitative data. We applied Critical Thinking Questionnaire to students before and after the study. Also we obtained the data from students interviews and diaries. The results have indicated that STH technique has improved the critical thinking skills of students.

Keywords: six thinking hats technique, critical thinking, creative thinking
ALTİ ŞAPKALI DÜŞÜNME TEKNİĞİNİN 8. SINIF ÖĞRENCİLERİNİN ELEŞTİREL DÜŞÜNME BECERİSİ ÜZERİNE ETKİSİ

Öz


Anahtar kelimeler: Altı şapkalı düşünme tekniği, eleştirel düşünme, yaratıcı düşünme

1. INTRODUCTION

In the 21st century there have been many different views and changes about our life styles, our perspectives on life and our comprehension about obtaining and improving the information as well as teaching it at schools. These changes mean that we need to think critically and look at the challenges we encounter and opportunities we meet critically. By doing so we can understand better and determine what approaches, methods and techniques are the most effective to cope with these changes in education. Critical thinking is related to make good decisions and it can provide you with a more insightful understanding of yourself. It will offer you an opportunity to be objective, less emotional, and more open-minded about perceiving others’ views and thoughts. By thinking critically you can understand the issues and solve the problems logically and also gain the confidence and new insights into tedious concerns. Thinking critically will boost creativity and enhance the way you use and manage your time (Hader, 2005) and critical thinking not only describes the ability to think in accordance with the rules of logic and probability, but also the ability to apply these skills to real-life problems, which are not content-independent. Keating (1980) describes the four components of critical thinking: 1) content knowledge – thorough familiarity with an accumulated base of knowledge/experience; 2) divergent thinking – the ability to entertain or generate new ideas easily from the knowledge base; 3) critical analysis – the ability to separate promising from unpromising avenues and to consider alternatives; and 4) communication skills – the ability to develop a product to be evaluated in a social content, outside the individual.

When people think critically they also learn to think creatively and they gain the ability of creative thinking. Creative thinking requires identifying an argument, analysing, evaluating, evidence, making judgements and structuring reasons in a logical way towards a conclusion (Cottrell, 2005). Also such skills are necessary for the contemporary approaches, so creative thinking skills should be taken into consideration in education processes.
In the 21st century with the development in technology, economy, social issues and education system, there has been a change from traditional approach based on academic achievement to a constructivist approach based on process and innovative learning and teaching styles. Furthermore, great importance has been given to improve children’s thinking and learning skills. In response to the widespread interests of improving children’s thinking and learning skills, specific interventions have been found constructive in improving children’s thinking and intelligence (Fisher, 2006). However, thinking is often limited to a particular perspective which may not always be the most appropriate (Jesson, 2012). Thus, in 1985, De Bono (1999) introduced the Six Thinking Hats (STH) technique, a parallel thinking process which makes easy to think by going through points consecutively and carrying out ‘a switch in thinking’. Through with the application of the STH, it is arranged to aid the creative state of mind and to stimulate learners to think and control learning (Kruse, 2010). John Dewey (1933) pointed out that learning to think is the central purpose of education and by engaging students at a crucial time in their developmental process, we can lay the foundation for good critical thinkers. The word ‘critical’ means to understand the people and things around us and analyze our own thinking processes. However, criticizing ability is used just as limiting the thinking process of a person (Chaffee, 1988). According to Paul and Elder critical thinking is “the art of analyzing and evaluating thinking with a view to improving it” (2009, p. 2). Halpern (1996) defines critical thinking as the use of cognitive skills or strategies that would enhance the probability of desirable behaviors and manners. People unconsciously think but people consciously think critically.

Critical thinking individuals are the people who research the information, ask questions, think analytically, synthesize and evaluate the information and explain it with true basis, treat open-minded and are aware of thinking processes. The individuals who gain these features will be better in solving problems they encounter during their life. Bowell and Kemp (2002) state that if people develop the ability to analyze people’s attempts to persuade, they can accurately interpret what the other people say and evaluate whether or not they give a good argument.

The development of thinking skills has become a noted trait in teaching learners ‘how to think’. Thus STH technique which is one of the thinking skills tools is applied classrooms in order to provide students with the skills needed for metacognitive processes. For an education system to give the opportunities to students that would develop their potentials and have active roles in the development of their country, content and methods of teaching must be reorganized according to critical, creative, scientific, relational thinking and reasoning skills (Özden, 2005). Therefore, in the field of education and other fields, there has been a growing awareness that children must be prepared for critical thinking or higher-order thinking. Furthermore, as Bulut and Akyüz (2017) point out motivation is another factor in a foreign language teaching process, because it helps students to persist in learning. So students can motivate themselves while applying or using critical thinking skills in language learning in education process. It may improve students’ motivation because of its persistence.

In 1985, Dr. Edward de Bono introduced the STH (a thinking skills tool). It allows thinkers to simplify thinking by dealing with points consecutively and carrying out ‘switch in thinking’ (De Bono, 1999). As ideas are encouraged to be explored from a variety of angles, it provides a space for critical thinking and creativity (House et al., 2011; Marrapodi, 2003). In applying the STH technique, students are stimulated to think and control their own learning (Kruse, 2010). STH describes a tool for group discussion and individual thinking including six colored hats. STH and the related idea ‘parallel thinking’ offer a technique for groups to plan thinking processes in detail, mentally, cohesively, and in doing so
it helps to think together more effectively. We can explain the colored hats as below:

<table>
<thead>
<tr>
<th>White Hat Thinking: Just the facts</th>
<th>The white hat calls for information known or needed. When you ask for white hat thinking you are asking what information is needed, what is available and how it can be obtained.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow Hat Thinking: Benefits. Pluses.</td>
<td>The yellow hat explores the positives and probes for value and benefit. The yellow hat role is for discussing ONLY the positive view of problems and possibilities for solutions.</td>
</tr>
<tr>
<td>Black Hat Thinking: Difficulties. Problems.</td>
<td>The black hat is logical and critical judgment: why something may not work. Spot the difficulties and dangers. The black hat points out what cannot be done. The hope is that the black hat will prevent us from making mistakes.</td>
</tr>
<tr>
<td>Red Hat Thinking: Feelings. Gut instinct. Intuition.</td>
<td>The red hat signifies feelings, hunches and intuition. When using this hat people can express emotions and feelings and share fears, likes, dislikes, loves and hats. They don’t need to justify their statements.</td>
</tr>
<tr>
<td>Green Hat Thinking: Creativity. Ideas. Possibilities.</td>
<td>The green hat is an opportunity to express new concepts and new perceptions. People can generate alternative solutions or courses of action, put forward possible explanations or hypotheses, create new scenarios or future states, or generate possible designs.</td>
</tr>
<tr>
<td>Blue Hat Thinking: Managing the thinking.</td>
<td>The blue hat deals with controlling the thinking process. The blue hat is sometimes ‘given’ to one person, who controls which hat will be ‘worn’, hence controlling the type of thinking being used. The blue hat comments on the thinking being used, asks for conclusions, decisions, etc.</td>
</tr>
</tbody>
</table>

Figure 1. Six Thinking Hats (Kruse, 2010, p. 71)

As shown in Figure 1, the white hat calls for information while the red hat provides opportunity for expressions (Kruse, 2010). Just as the sun shines brightly, the yellow hat symbolizes the positive points, whereas the black hat which is the negative hat, involves detecting problems and critical judgement (De Bono, 2011a). Then there is the green hat which focuses on creativity and blue hat that manages the thinking process (De Bono, 2011a). Thus, the STH technique is important as it allows learners to become more self-directed even as more information is gained (Starko, 2010; Stone, 2005). Hence, as each hat provides a framework for organized thinking and supplies cues for open-ended responses, the STH technique is encouraged to support both the teacher and class to think creatively in dealing with problems (Jesson, 2012; Stone, 2005). Students explain their ideas according to hats’ colour they wear.

In today’s English language classes, which is taught as a foreign or second language, students’ ability to think critically is essential in teaching and learning process. Because using textbooks, reading books, videos, songs, flash cards, games and like these in English language classes are not enough. Students need to use different kinds of materials and also learning tools in order to learn the language in a reasonable way. When the students are obliged to learn the language by memorizing the rules, grammatical structures and vocabulary, they forget them after a while and they cannot use the language properly. However, having a critical thinking attitude and even using one of the critical thinking teaching tools such as STH provides language learners with understanding how to perform certain mental activities. So, they can understand, think and reply easily and mentally in the target language when they come across issues such as social, technological, cultural, historical, contemporary and political. Furthermore, the new curriculum of language learning and teaching in secondary school in Turkey (2016-2017...
academic year) is based on thinking broadly and critically, solving problems, working collaboratively, being open-minded, having positive attitudes, being responsible for learning process and self-confidence in learning and using English not only at school but also outside the school. This aim is in accordance with one of the main objectives of the Common European Framework of Reference (CEFR) which is stated as “to promote methods of modern language teaching which will strengthen independence of thought, judgement and action, combined with social skills and responsibility” (CEFR, 2001, p. 4). By implementing STH technique related to topics in subject units in the curriculum into the inquiry-based classrooms, teachers and students are set to present their opinions and explore new things, instead of learning by note. As each STH provides a framework for organised thoughts that may be changed purposefully (Stone, 2005), by applying the STH in English lesson which has been recognized to require critical and creative thinking in recent years, English lessons can be more efficient and useful for students. Moreover, students’ critical thinking skills can be improved.

Based on this premise, the main concern of this study is to see the effects of STH technique on critical thinking skills of 8th grade students.

2. THE STUDY

The purpose of this study is to investigate the improvement of critical thinking skills of 8th grade students through using STH technique in English language classes and also improve their critical thinking skills, creative thinking skills and reasoning skills in their school and normal life. Keeping these purposes in mind, this study aimed at responding to the following questions:

1. Does STH technique improve the critical thinking skills of students?
2. What type of critical thinking skills can be improved?
3. How do students feel after the study?

Our particular case study took place at Yağızlı Secondary School located in Yağızlı Village, Ordu, Turkey. 8th graders took part in the research. The researcher, who had been teaching at school for five years, was their own English teacher. The school is a small school. There are only one classes for each grade. There were only 12 students (five males and seven females) in the 8th grade so all of them took part in the study. All students’ ages were 14 and 15 and their mother tongue was Turkish.

We applied this study in the first semester of 2016-2017 academic year. The textbook includes 10 units, five of them are for the first semester and the others are for the second semester. STH technique was applied five times in each unit in textbook. The topics were chosen related to topics in the curriculum.

In our particular case study we used triangulation method. Also we used qualitative and quantitative data. The triangulation method, which is the application and combination of several data collection sources increases the credibility and validity of the results in qualitative research. Cohen and Manion (2000) define triangulation as an "attempt to map out, or explain more fully, the richness and complexity of human behavior by studying it from more than one standpoint” (p. 254). According to O’Donoghue and Punch (2003), triangulation is a “method of cross-checking data from multiple sources to search for regularities in the research data” (p. 78).

We applied Critical Thinking Questionnaire to students before and after the study in order to see whether their critical thinking skills improved during the process. Furthermore, we used interviews in order to learn students’ thoughts, attitudes and beliefs about critical thinking dispositions they gained
during the study. Yin (1994) states that interviews are an essential source of case study evidence because most case studies are about human affairs. These human affairs should be reported and interpreted through the eyes of specific interviews, and well-informed respondents can provide important insights into a situation (p. 85). Our interview questions are:

1. Do you think STH technique improve your critical thinking skills? If so, please explain.
2. Do you think STH technique help you to improve your critical thinking dispositions such as being more inquisitive, systematic, judicious, analytical, truth seeking, open minded and confident in reasoning? If so, please explain.

Moreover, we used students’ diaries in order to learn their thoughts and feelings about study. According to Bailey (1990), a diary study "is a first-person account of a language learning or teaching experience, documented through regular, candid entries in a personal journal and then analyzed for recurring patterns or salient events" (p. 215). In fact, diary studies have been an important introspective tool in language research because they can provide an emic perspective of learners’ learning experiences and processes which may be “hidden” or “inaccessible” through observation from investigators (Bailey & Ochsner, 1983, p. 189). Diaries are useful for both language teachers and students. Diaries are promising benefit. Because diaries help to clarify the students’ feelings and thoughts toward various aspects of STH technique activities. They are reflective. Students behave sincerely when keeping diaries that help us to learn the possibility of hidden attitudes and feelings from an external observer.

3. RESULTS AND DISCUSSION
In this part, the results will be discussed in the framework of the research questions of the study. We analyzed the data addressing to research questions and their related instruments. This process required data reduction because the data was analyzed with the aim of sorting, focusing, and reorganizing for drawing final conclusions and seeing the complete picture.

Our first research question is whether STH technique improves the critical thinking skills of students. In order to answer this question we used Critical Thinking Questionnaire (see appendix 1). This questionnaire is a multidimensional measurement which includes 60 items according to 19 subscales. We categorized the students’ answers according to “usually, sometimes and never” frequency adverbs. We applied this questionnaire to students two times before and after the study. These subscales with the question numbers in the questionnaire and percentages of students answers before and after the study are as below:
Table 1. Percentage of Students’ Choices in Critical Thinking Questionnaire

<table>
<thead>
<tr>
<th></th>
<th>Usually</th>
<th>Sometimes</th>
<th>Never</th>
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<tbody>
<tr>
<td></td>
<td>Before Study</td>
<td>After Study</td>
<td>Before Study</td>
</tr>
<tr>
<td>1) Thinking Independently (1,13,38,54)</td>
<td>70</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>2) Developing Intellectual Courage (2,6,14, 24, 28, 33)</td>
<td>65</td>
<td>75</td>
<td>30</td>
</tr>
<tr>
<td>3) Questioning Deeply: Raising and Pursuing Root for Significant Question) (3, 22, 35)</td>
<td>68</td>
<td>77</td>
<td>30</td>
</tr>
<tr>
<td>4) Developing Intellectual Humility and Suspending judgement (4, 52)</td>
<td>70</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>5) Exercising Fair-mindedness (5, 11, 53)</td>
<td>80</td>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td>6) Clarifying and Analyzing the Meanings of Words and Phrases (7, 48)</td>
<td>85</td>
<td>87</td>
<td>12</td>
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<tr>
<td>7) Making Plausible Inferences, Predictions or Interpretations (8, 55, 60)</td>
<td>79</td>
<td>85</td>
<td>11</td>
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<tr>
<td>8) Defining Generalizations and Avoiding Oversimplifications (9, 20, 34, 57)</td>
<td>86</td>
<td>88</td>
<td>10</td>
</tr>
<tr>
<td>9) Listening Critically: The Art of Silent Dialogue (10, 23, 43, 59)</td>
<td>68</td>
<td>77</td>
<td>25</td>
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<tr>
<td>10) Reading Critically: Clarifying or Critiquing the Text (12, 19, 51)</td>
<td>60</td>
<td>72</td>
<td>30</td>
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<tr>
<td>11) Developing Intellectual Good Faith or Integrity (15, 18, 42, 56)</td>
<td>62</td>
<td>78</td>
<td>28</td>
</tr>
<tr>
<td>12) Refining Generalizations and Avoiding Oversimplifications (20)</td>
<td>70</td>
<td>80</td>
<td>25</td>
</tr>
<tr>
<td>13) Comparing and Contrasting Ideals with Actual Practice (25, 41)</td>
<td>75</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>14) Practicing Socratic Discussion: Clarifying and Questioning Beliefs, Theories, or Perspectives (26, 29, 36)</td>
<td>67</td>
<td>75</td>
<td>30</td>
</tr>
<tr>
<td>15) Comparing Analogous Situations: Transferring Insights to New Contexts (27, 37, 40, 58)</td>
<td>60</td>
<td>75</td>
<td>30</td>
</tr>
<tr>
<td>16) Developing Intellectual Perseverance (30, 46)</td>
<td>75</td>
<td>82</td>
<td>22</td>
</tr>
<tr>
<td>17) Noting Significant Similarities and Differences (31, 45, 49)</td>
<td>78</td>
<td>86</td>
<td>20</td>
</tr>
<tr>
<td>18) Generating or Assessing Solutions (32, 47, 50)</td>
<td>67</td>
<td>80</td>
<td>23</td>
</tr>
<tr>
<td>19) Defining Generalizations and Avoiding Oversimplifications (34, 57)</td>
<td>70</td>
<td>85</td>
<td>20</td>
</tr>
</tbody>
</table>
As it can be seen from the table above, the differences between the percentages of before and after the study show that students’ comprehension, explanation, the ability of thinking critically and creatively are higher than the first one. So we can say that students’ critical thinking skills improved through using STH technique.

Our second research question is what type of critical thinking skills can be improved. In order to answer this question we used students’ interviews. In the interviews we have two questions searching the students’ thoughts about the STH activities we had in classroom. The interview questions basically ask the participants’ thinking ability, thinking critically and creatively. The answers were subjected to content analysis. Teacher researcher’s first interview question was whether the students think STH technique improved their critical thinking skills.

When we looked at content of the answers of students we saw that they thought that STH technique improved their thinking skills. 10 of the 12 participants expressed clearly their improvement in critical thinking while applying STH technique activities. The other two participants expressed their thoughts by telling their improvement in reasonable thinking. As can be inferred from all of the students’ thoughts about STH activities they performed in the class, we can state that:

- they thought that the activities made them think critically
- they thought that the activities increased their creative thinking
- they learnt to look at the topic from different perspectives

In their own words students expressed their ideas as follows:

- **In the past I could not look at the topics or issues from different perspectives. However after the STH technique I started to think the topics from different perspectives. Now I can solve the problems easily.**
- **Before making up my mind, I look at the topics critically and decide if they are good or bad for me. Then I do.**
- **In the past I could not share my ideas with my friends, but after STH technique I can share my positive, negative and creative ideas with my friends easily.**
- **I have been looking for the ways of solving a problem since we applied the STH technique.**
- **When some of my friends ask me to help them about solving a problem, I think creatively and suggest them new ideas.**

The second interview question is whether the students think STH technique helps them to improve their critical thinking dispositions such as being more inquisitive, systematic, judicious, analytical, truth seeking, open minded and confident in reasoning. When we looked at the content of the answers of students we saw that all of them expressed their feelings especially using the words such as systematic, judicious, analytical, and open minded. The answers for this question could be summarized as follows:

- they thought analytically
- they followed a systematic way in problem solving
- they were open minded to all of the different ideas
- they thought reasonably

In their own words students expressed their ideas as follow:
With the help of this technique when I compare my current thinking style with my past life, I think that I am more inquisitive, systematic, judious, analytical, truth seeking, open minded and confident in reasoning.

I am more judious and truth seeking in my relationships with my friends and family members after the STH technique.

I am confident about myself and my ideas. Because I look at the issues from different views and think reasonably.

I am more inquisitive in English lessons after using the STH technique.

Considering the overall responses to the interview questions, we can claim that the implementation of STH technique activities in the classroom setting improved the students’ critical thinking skills and they can be improved much more. Moreover, we can claim that students’ critical thinking dispositions improved more.

Our third research question is how students feel after the study. In order to answer this question we used students’ diaries. The students wrote diary entries for each of the five STH technique activities. They submitted them after finishing all of the activities. After reading all of the diaries carefully, we conducted content analysis and discovered some notions which were often repeated by students. These notions were being inquisitive, critical, creative and reasonable thinker. Students almost in each diary stated that they liked the STH technique and they not only learnt to look at a topic from different perspectives but also enjoyed in the activities. When we looked at the students’ diaries for each STH technique activity one by one we can say that students were particularly reflective and self-exploratory on their critical thinking. To confirm these judgements, we would like to cite some quotes from student diaries below (translated by the teacher researcher):

They said they liked the STH technique activities and enjoyed during them in English lesson. We can support this by giving examples from students’ diaries:

- I liked STH technique so much.
- At first I thought that I would be bored but then my thought changed. Because I started to enjoy in the STH tecnique activities so much.
- We are discussing the topics in a good atmosphere in the classroom and enjoying so much.
- When our teacher explained the STH tecnique to us for the first time, I was afraid of it a little bit. Because I thought I could not do it. It was a very different kind of thing for me. However, in time I liked it so much and enjoyed it. Thank you my dear teacher.

They said the STH technique activities helped them to feel happy because of learning to manage the time and solve the problems by thinking critically, creatively, reasonably and systematically in an appropriate time. They stated their thoughts and feelings by saying:

- Before STH technique I coul not manage the time about everything at school and in my life. However, after STH technique I think and decide properly by managing the time even in small issues.
- In the past I was so indecisive, because I did not know what to do when I came accross a problem. Thus, I consumed my time in vain. But now, I can manage it thanks to STH technique. So I feel happy.
I can decide on anything by thinking critically, creatively, reasonably which makes me feel happy and more confident.

Yuppie, I have learnt to think systematically. I am not afraid of deciding to do something. Because I have learnt how to think by considering from different perspectives.

Students emphasized that they were proud of themselves about solving the problems in their school and normal life. We can back up this with the examples from students sayings:

- In the past when I came across a problem, I was worried about it. Because I did not know what to do and how to solve it. But after the STH technique, I learnt to think in different ways, positive and negative parts of an issue. After a while I realized that I could solve the problem easily. And now, I am proud of myself.
- After STH technique I am aware of myself. I can see my objective, emotional, negative, positive, creative and controlling ways. I know not only my weaknesses and how to deal with them but also my strengths and how to pursue them. So I am proud of me.

Considering the aims of this study of diaries, we obtained the feedback revealing the students’ thoughts and feelings about critical thinking and STH technique. Content analysis of student diaries revealed that STH technique and activities improved the critical thinking skills of 8th grade students.

4. CONCLUSION
When we look at the complete picture of all of the results, we can claim that the STH technique improves the critical thinking skills of students and it is parallel to the students’ ability to find a connection and understanding of what they have learnt. STH technique has also proven to be a successful thinking tool to improve children’s critical thinking skills and creative thinking skills. Students’ interests in the learning process can be affected by different issues and so critical thinking skills strategies can be introduced and applied in curious classrooms at secondary school. As Singh (2007, p.53) points out that when learners go through adolescence, they have the maximum growth of mental functioning. So if we supply the learners with the necessary and useful thinking skills tools in education process, we can maximize their critical and creative thinking abilities. Also it makes the children to be sensible not only in their school life but also in their normal life. Furthermore, teachers involving in the situations, experiments and applications of critical thinking skills make benefit from critical and creative thinking. So, even as strategies are sought for educators and inquirers to work with, learners need to have “a sense of oneself, including self as thinker and learner, and a sense of others and of interaction with them” (Fisher, 1999, p. 52).

The effectiveness of STH technique is an evident that learners gain critical thinking skills, as thinking becomes more focused, comprehensive and constructive (Jesson, 2012; Stone, 2005). The improvements in “how to think” requires an active learning and teaching process in education, the development of thinking skills should be inserted into the curriculum to promote specific skills application and strategies for students to confront learning in a continuous development and meaningful process. Consequently we can say that if we apply STH technique properly and continue to apply it according to different levels, age groups and topics in the curriculum, we will be able to grow up more curious, open minded, critical and creative thinker generations in the future.
REFERENCES


Appendix 1.

CRITICAL THINKING QUESTIONNAIRE

Name & Surname:
Answer the following questions carefully.

<table>
<thead>
<tr>
<th></th>
<th>Usually</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I think better whether to decide on something is true or not. S-1 Thinking Independently</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I am patient enough. Even my homework is hard; I stick to it and finish it. S-8 Developing Intellectual Courage</td>
<td></td>
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<tr>
<td>3</td>
<td>I always ask questions to check my understanding. S-17 Questioning Deeply: Raising and Pursuing Root for Significant Question</td>
<td></td>
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<tr>
<td>4</td>
<td>I shouldn’t say things are true when I don’t really know they are. S-5 Developing Intellectual Humility and Suspending Judgment</td>
<td></td>
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<tr>
<td>5</td>
<td>I try to understand my parents. S-3 Exercising Fair-mindedness</td>
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<table>
<thead>
<tr>
<th>Star</th>
<th>Statement</th>
<th>Rubric</th>
<th>Grade</th>
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<tbody>
<tr>
<td>6</td>
<td>I study harder to succeed a hard task.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>S-8 Developing Intellectual Courage</strong></td>
<td></td>
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<tr>
<td>7</td>
<td>I can match the words with their meanings.</td>
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<td></td>
<td><strong>S-14 Clarifying and Analyzing the Meanings of Words and Phrases</strong></td>
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<td>8</td>
<td>I am able to distinguish my observations from my conclusions.</td>
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<td></td>
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<td></td>
<td><strong>S-32 Making Plausible Inferences, Predictions, or Interpretations</strong></td>
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<tr>
<td>9</td>
<td>I simplify the problems, so I make them easier to deal with.</td>
<td></td>
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<td></td>
<td><strong>S-10 Defining Generalizations and Avoiding Oversimplifications</strong></td>
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<tr>
<td>10</td>
<td>I listen carefully what my friends say.</td>
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<td></td>
<td><strong>S-22 Listening Critically: The Art of Silent Dialogue</strong></td>
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<td>11</td>
<td>I give weight to other peoples’ opinions and listen to them respectfully.</td>
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<td><strong>S-3 Exercising Fairmindedness</strong></td>
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| 12 | I look up what I don’t understand and question what I read until I understand.  
**S-21 Reading Critically: Clarifying or Critiquing the Text** |   |
| 13 | I can evaluate both my goals and how to achieve them.  
**S-1 Thinking Independently** |   |
| 14 | I should not be afraid to disagree.  
**S-6 Developing Intellectual Courage** |   |
| 15 | I try to be the kind of person I expect others to be.  
**S-7 Developing Intellectual Good Faith or Integrity** |   |
| 16 | I am able to recognize the gaps between facts and ideals.  
**S-27 Comparing and Contrasting Ideals with Actual Practice** |   |
| 17 | I approach problems realistically.  
**S-19 Generating or Assessing Solutions** |   |
| 18 | I don’t lie to anybody because I expect the same from others.  
**S-7 Developing Intellectual Good Faith or Integrity** |   |
| 19 | I always read with a healthy skepticism. I clarify what I read before I judge because I realize that everyone is capable of making mistakes and being wrong, including authors of textbooks.  
S-21 Reading Critically: Clarifying or Critiquing the Text |
|---|---|
| 20 | I can simplify the problems in order to make them easier to deal with  
S-10 Refining Generalizations and Avoiding Oversimplifications |
| 21 | While reading a poem, I am able to understand the allusive meaning beyond a phrase.  
S-14 Clarifying and Analyzing the Meanings of Words and Phrases |
| 22 | I ask questions about a topic or subject to learn it deeply.  
S-17 Questioning Deeply: Raising and Pursuing Root for Significant Questions |
| 23 | I listen to the people carefully and give weight what they say.  
S-22 Listening Critically: The Art of Silent Dialogue |
| 24 | I don’t hesitate to have discussion about a subject.  
S-6 Developing Intellectual Courage |
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<th>Page</th>
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| 25   | The more realistic are my ideals, the easier I can come to achieving them.  
**S-27 Comparing and Contrasting Ideals with Actual Practice** |
| 26   | I ask “why” questions to go beyond the basic information.  
**S-24 Practicing Socratic Discussion: Clarifying and Questioning Beliefs, Theories, or Perspectives** |
| 27   | After I learn Simple Present Tense in my English class, I am able to talk about my daily routines.  
**S-11 Comparing Analogous Situations: Transferring Insights to New Contexts** |
| 28   | Making mistakes is not something to hesitate for me.  
**S-6 Developing Intellectual Courage** |
| 29   | I ask questions to myself to develop my ideas.  
**S-24 Practicing Socratic Discussion: Clarifying and Questioning Beliefs, Theories, or Perspectives** |
| 30   | Sticking to a problem is always better than giving up.  
**S-8 Developing Intellectual Perseverance** |
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| 31 | I can find the differences between two or more things.  
**S-29 Noting Significant Similarities and Differences** |
| 32 | I use everything available to find the best solution.  
**S-19 Generating or Assessing Solutions** |
| 33 | I don’t afraid of making mistakes when answering to a question.  
**S-6 Developing Intellectual Courage** |
| 34 | If a text overlooks factors by stating one cause for a problem, situation, or event, I try to find out other possible factors.  
**S-10 Defining Generalizations and Avoiding Oversimplifications** |
| 35 | I ask questions to organize the details of something, so I get the necessary information.  
**S-17 Questioning Deeply: Raising and Pursuing Root for Significant Questions** |
| 36 | I don’t become offended, or confused when I am questioned  
**S-24 Practicing Socratic Discussion: Clarifying and Questioning Beliefs, Theories, or Perspectives** |
| 37 | I am able to use what I have known in new situations  
**S-11 Comparing Analogous Situation: Transferring Insights to New Con-** |
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<th>Texts</th>
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| 38 | I try to figure out things for myself.  
**S-1 Thinking Independently** |
| 39 | I respect to the people whom I have different views.  
**S-3 Exercising Fair-mindedness** |
| 40 | I am able to use what I learned in one situation when I meet new situations that need the same skills.  
**S-11 Comparing Analogous Situations: Transferring Insights to New Contexts** |
| 41 | Olabilecek olan ve olması gereken arasındaki farkı anlayabilirim.  
**S-27 Comparing and Contrasting Ideals with Actual Practice** |
| 42 | I try to be the kind of person I expect others to be.  
**S-7 Developing Intellectual Good Faith or Integrity** |
| 43 | I don’t like interrupting my parents’ or teachers’ speeches.  
**S-22 Listening Critically: The Art of Silent Dialogue** |
| 44 | I can recognize the limits of my knowledge.  
**S-5 Developing Intellectual Humility and Suspending Judgment** |
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<tr>
<th>No</th>
<th>Statement</th>
<th>Subcategory</th>
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<tbody>
<tr>
<td>45</td>
<td>Categorizing or grouping the knowledge is not hard for me.</td>
<td>S-29 Noting Significant Similarities and Differences</td>
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<tr>
<td>46</td>
<td>When writing is hard, I keep trying so I am able to write better.</td>
<td>S-8 Developing Intellectual Perseverance</td>
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<tr>
<td>47</td>
<td>I create possible solutions in order to find the best one.</td>
<td>S-19 Generating or Assessing Solutions</td>
</tr>
<tr>
<td>48</td>
<td>I am able to form a new sentence using the opposite or synonym of a word.</td>
<td>S-14 Clarifying and Analyzing the Meanings of Words and Phrases</td>
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<tr>
<td>49</td>
<td>I can find the similarities between two or more things.</td>
<td>S-29 Noting Significant Similarities and Differences</td>
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<tr>
<td>50</td>
<td>I pursue a realistic course to solve the problems that I come across.</td>
<td>S-19 Generating or Assessing Solutions</td>
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<tr>
<td>51</td>
<td>I am good at getting the main point of a passage or text.</td>
<td>S-21 Reading Critically: Clarifying or Critiquing the Text</td>
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<tr>
<td>52</td>
<td>I can distinguish what I know from what I don’t know.</td>
<td>S-5 Developing Intellectual Humility and Suspending Judgment</td>
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| 53 | I respect my friends. I am willing to hear their points of view.  
**S-3 Exercising Fair-mindedness** |   |   |
| 54 | I don’t just believe what everyone else does or says.  
**S-1 Thinking Independently** |   |   |
| 55 | I can make inferences about a story from story titles and pictures.  
**S-32 Making Plausible Inferences, Predictions, or Interpretations** |   |   |
| 56 | I don’t take something of someone’s without asking permission because taking something without permission is wrong.  
**S-7 Developing Intellectual Good Faith or Integrity** |   |   |
| 57 | I don’t see situations as black or white, right or wrong. I am aware that there are many other opportunities.  
**S-10 Defining Generalizations and Avoiding Oversimplifications** |   |   |
| 58 | After learning new English vocabularies from a reading text, I am able to apply it to other contents  
**S-11 Comparing Analogous Situations: Transferring Insights to New Contexts** |   |   |
| 59 | I understand the subject better when I listen to my teacher carefully.  
**S-22 Listening Critically: The Art of Silent Dialogue** |   |   |
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<tbody>
<tr>
<td>S-32</td>
<td>Making Plausible Inferences, Predictions, or Interpretations</td>
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Every interpretation should be based on inferences.