



## Comic Books Use in Social Studies Lesson: Texas History

Genç Osman İlhan <sup>1</sup>, Şahin Oruç <sup>2</sup>

### Abstract

Comic books are not only a type of reading material but also a useful educative source for various lessons. Based on this, this study aims to examine the effects of comic books on middle school students' motivation and academic success in social studies course. Quasi-experimental research design was used in the current study, in which 19 students were in experimental group and 20 students were in the control group. The data gathered by the motivation scale and the achievement test. The study lasted for three weeks in 2015-2016 educational year. Findings revealed that students, who were taught by the comic book, in the experimental group, reached significantly better achievement score and higher motivation than their counterparts, who were taught in traditional classroom environment.

### Keywords

Comic books  
Social studies  
Motivation  
Academic success  
Instructional material

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### Introduction

The design of teaching and learning process has been a concern for educators as much as the content itself (Gagne & Briggs, 1974). Curriculum developers are kindly advised to define the learning experiences as evaluators have noticed the outcome of the process is not enough for education, the whole process needs attention, too (Scriven, 1996). It has never been enough to transmit valuable information, the way to do this also deserves attention. Different learning models, new techniques, contemporarily designed materials are all the efforts to make education more effective. For this effective education, issues such as teaching practices (Chatzipanteli, Digelidis, & Papaioannou, 2015), material development (McLoughlin, 1999; Riding & Sadler-Smith, 1992; Sun & Cheng, 2007), student engagement (Leach, 2016; Parsons, Nuland, & Parsons, 2014), student motivation (Hofferber, Basten, Großmann, & Wilde, 2016) gained more significance than before.

Every branch of education got their share from the efforts for effective lessons, yet the scope of this study is chosen as social studies course for personal interests. It is never possible to declare a specific course to be highly effective in every classroom; moreover, social studies course could be classified as a bit more problematic. Barton and Levstick (2015) state that although social studies course in the U.S. is a multidisciplinary course involving geography, history and civil education, social studies course is found boring by students. Furthermore, social studies curriculum is found to be indifferent to student engagement (Balenger, 2017). Students find social studies lesson boring and they are not interested in the lesson (Chiodo & Byford, 2004). Also, the course is expected to contribute certain understandings such as the economy, but the contribution is found insufficient (Boddy & Tocco, 1974).

<sup>1</sup> © Yıldız Technical University, Faculty of Education, Department of Social Studies Education, Turkey, [gosman.ilhan@gmail.com](mailto:gosman.ilhan@gmail.com)

<sup>2</sup> © Yıldız Technical University, Faculty of Education, Department of Social Studies Education, Turkey, [sahinoruc44@hotmail.com](mailto:sahinoruc44@hotmail.com)

The National Council for the Social Studies (NCSS) declared normative and moral issues are neglected in social studies lesson (Misco, 2014). Thus, Powerful Social Studies Teaching and Learning (PSST&L) was founded by NCSS. Misco (2014) points out that social studies lessons need to be designed in a theme-based way and involve problem-solving activities. For this, social studies teachers need to adapt the curriculum and materials for their lessons. Because, social studies textbooks were found to be determining the purposes and the nature of the classroom (Butler, Suh, & Scott, 2015). However, social studies lesson requires a deeper understanding of concepts and issues than before (Ediger, 2016).

As social studies curriculum and textbooks are not satisfactory, teachers' efforts in classroom are vital. Teacher efficacy is a strong determiner of student achievement (Persinski, 2015). However, they express having problems in many areas such as motivation, self-motivation, motivational activities, achievement, student differences, and goal problems (Range, 2011). In Turkey, social studies textbooks include written and oral materials (Doğan, 2007; Kaymakçı, 2013). However, social studies teachers need different materials for effective lessons, since effective instructional materials can increase student engagement, success, and motivation (Chinien & Boutin, 1994; McNeil, Lizotte, Krajcik, & Marx, 2006).

Integrating materials such as technology (Del & Theresa, 2001; Whitworth & Berson, 2003), multimedia (İlhan & Oruç, 2016), stories (Demircioğlu, 2008; Tin, Nonis, Lim, & Honig, 2013), films (D'sa, 2005; Stoddard & Marcus, 2010), humour (Oruç, 2010) and videogames (Maguth, List, & Wudnderle, 2015; Marino & Hayes, 2012) into social studies lesson resulted in better motivation and academic success. Russell III (2012) used films in different ways (as textbooks, as analogy, histography, etc.) and suggests teaching with films is an effective and didactic way of teaching. Also, the use of picture in social studies textbooks is found to be positively affecting student engagement and understanding in a qualitative study (Carlson, 2012).

With the curricular and instructive issues of social studies in mind, this study used a different kind of material for student motivation and achievement: comic books. Research shows that comic books with pictures, movements and sounds could be utilized effectively as a social studies lesson material (Christensen, 2006; Hutchinson, 1949). This way, the advantages of visuals in textbooks (Başal, Aytan, & Demir, 2016), motion in movies (Marcus, Metzger, Paxton, & Stoddard, 2018) and written messages (Levstik, 2008; Sanchez, 1998) would be combined in one material. In related literature, although there are studies investigating visuals (İlhan, Şeker, & Kapıcı, 2015; Kapıcı & Savaşçı Açıkalın, 2015; Uzuner, Aktaş, & Albayrak, 2010) or graphic illustration (Oruç, Baloğlu Uğurlu, & Tokcan, 2010) in school textbooks, it is difficult to find studies about usage of comic books in teaching social studies. From this point of view, the aim of this study is to investigate the effects of comic books on students' motivation and academic success in social studies.

#### ***From Reading Materials to Instructional Materials: Comic Books***

The pictures of movement drawn on the walls of caves were the first tries of humans to depict a story. As a formal book with an author, Meijer (1988) refers to Leonardo da Vinci as the author of comics with his drawings in his notebook. Kunzle (2007), on the other hand, refer to Töppfer as the father of comics with his book "Historie de M. Vieux Vois" (1837). As a reading material, comics are mostly popular in the US (İlhan, 2016b), yet they are not a newly-thought material for education as one would anticipate. They were highly popular as classroom materials in the mid of 1900s (Sones, 1944; Marston, 1943) as they were found to reflect the features of the era in an authentic way, provide an enjoyable way of learning to the students, contribute to students' vocabulary, improve students' creativity, and provide enhancing and permanent ethical teachings (Carr, 1958). The start of comics use in education started almost three years after the release of comic books in 1935 (Sones, 1944). Now, the trend of comic books is rising again with the film industry and retro effect, and educators have turned their faces to this material from two centuries back (Hall, 2011; Kim, Chung, Jang, & Chung, 2017; Lin & Lin, 2016; Tilley, 2013).

The re-popularity of comic books as classroom materials has brought along positive educational effects. It has been found that the use of comic books affects the attitudes of students positively when used as a learning tool in the classroom (Cirigliano, 2012; İlhan, 2016a). As comics are rich in terms of visuals and they add the effect of sound and movement in itself, they have been found effective in courses like language (Kılıçkaya & Krajka, 2012), physiology (Zehr, 2011), and especially in health care (Pincavage et al., 2014).

The number of studies about the use of comic books is promising for better practices and positive outcomes (Buyayisqui, Bordoni, & Garbossa, 2013; Ghiso & Low, 2013; Sim, McEvoy, Wain, & Khong, 2014; Topkaya & Şimşek, 2015; Ünal, 2018). Comics are recommended to be used in social studies lessons (Sever, Koçoğlu, & Tan, 2017); however, the effect of comic books on students' motivation and academic achievement in social studies lesson has not been thoroughly studied. Although there are studies about the use of comic books in the area of health and health education (Branscum & Sharma, 2009), literacy (Rapp, 2011), mathematics (Brozo, 2013), language (Cary, 2004), and primary education (Rota & Izquierdo, 2003), social studies still remains a not-thoroughly touched area. In fact, pre-service teachers are found to be valuing the educational effect of comic books although they encountered problems while using it (McGrail, Rieger, Doepker, & McGeorge, 2018). However, history phase of social studies lesson is referred to be a suitable area for comics use by Pustz (2012) for three main reasons:

- a. Comic books enable students to understand comprehensive subjects and discuss with different perspectives,
- b. New sources could easily be presented to students easily,
- c. Students find lessons with comic books rather attention-catching.

#### *Two Phases of the Current Study: Motivation and Achievement*

Academic achievement is seen as a significant aim of education. The effectiveness of educational units from singular lessons (Hill, Rowan, & Ball, 2005; Sanders, Wright, & Horn, 1997) to whole programs (Taba, 1962) are tested via academic achievement. The factors increasing student achievement are analyzed to reach effective learning environments (Henry, Bryan, & Zalaquett, 2017; Hitt & Tucker, 2016; Wang & Sheikh-Khalil, 2014). Although the way of assessment has evolved through years, the credibility of academic achievement seems to last for more years. Alternative assessment techniques are developed (Lam, 2016; Mertler, 2016; Sullivan, Hoiriis, & Paolucci, 2018), but the credibility of achievement as a sign for educational benefit is still valid.

On the other hand, motivation is the trigger for students to understand (Bråten, Ferguson, Anmarkrud, Strømsø, & Brandmo, 2014). Thus, it is seen as a key for education and it is defined as the predictor of academic progress (Shin & Kelly, 2013). To increase student motivation, different techniques (Tombak & Altun, 2016; Banfield & Wilkerson, 2014) and materials are used (Buckley & Doyle, 2016; Ciampa, 2014), and teacher behaviours are analyzed (Schiefele & Schaffner, 2015; Shen et al., 2015; Schiefele & Schaffner, 2015). Thus, motivation is assessed in this project to evaluate the use of comics in social studies lesson.

This study fills a gap in the literature by presenting the use of comics in social studies education in middle school. Comics are used in science education (Tatalovic, 2009), medical education (Green & Myers, 2010), teaching literacy (Jacobs, 2007), and teacher education (Herbst, Chazan, Chen, Chieu, & Weiss, 2011), but there are very few studies investigating comics in social studies education. Christensen (2006) studied comics in high school education, and in Turkey Topkaya (2014), İlhan (2016b), and Ünal (2018) studied the subject only. (In this sense, this study is significant as it could be utilized in theoretical and practical senses and guide educators. It will bear a torch to the teachers by presenting the way of comics use and portraying instructional methods and educators by drawing attention to studies about

comics use in social studies education and its effects. Although this study is limited to only one setting, it is recommended for further studies to enlarge the sample or deepen the structure with qualitative studies. The two questions led the process of the research:

- How does the use of comic books in social studies lesson affect seventh grade students' achievement when compared to students who are exposed to traditional teaching approach in a middle school in Lubbock, Texas?
- How does the use of comic books in social studies lesson affect seventh grade students' motivation when compared to students who are exposed to traditional teaching approach in a middle school in Lubbock, Texas?

In the study, it is assumed that the sample answered achievement and motivation questions sincerely, and the researcher did not have an impact on the outcomes.

## Method

### *Research Design*

This study is based on a quasi-experimental research design, which is a sub-type of a quantitative approach. Quantitative studies follow a linear path to test hypothesis or answer scientific questions (Büyüköztürk, 2015; Neumann, 2006). In the current study, two groups – one experimental and one control group – were involved.

### *Sample*

The sample of this study consisted of 39 students at a middle school in Lubbock, Texas. Twenty of the students enrolled in the control group and the other 19 students were in the experimental group. The general characteristics are displayed in Table 1. The school selected for this study was a private but none-religious school. The sample was selected with purposive sampling as the teacher of the classroom was an acquaintance to the researcher and it would be more practical to direct the implementation process with her. Although purposive sampling is not fully convenient for generalizations, it is effective in explaining certain cases (Neumann, 2006). When the researcher wants to investigate certain subjects or wants to reach the 'average', purposive sampling fits. The sample belongs to Texas state, and it is hypothesized to be generalized to all 7<sup>th</sup> grades in Texas.

**Table 1.** Sample

	Control Group			Experimental Group			Total
	Texan	American	Immigrant	Texan	American	Immigrant	
<b>Male</b>	6	1	1	7	2	0	17
<b>Female</b>	9	3	0	8	1	1	9
<b>Total</b>		20			19		<b>39</b>

### *Implementation Process*

As the research questions suggest, pre and post-tests were implemented to investigate the achievement and motivation of students in the control and experimental groups for social studies lesson. While designing the study, it was decided to use a previously designed motivation scale. The literature was analyzed for motivation scales; however, they were found to be too broad to test the effect of comic book use. While discussing with an expert, it was determined to use a scale that can test the effect of a task or activity and motivational strategies questionnaire, which was developed by Pintrich (1991).

For the study, the curriculum of Texas social studies education was analyzed thoroughly to select a unit suitable to use comic books as a source. While searching for comic books for history education, "A Cartoon History of Texas" (Reynolds, 2008) was confronted. The content of the book was found to be highly compatible with the seventh grade social studies curriculum. When the curriculum and the comic book were analyzed in detail, "Americans Settle in Texas" unit in the course book, "Holt

Texas!" was chosen to be suitable to teach with comics. In the comic book chosen, the third part, "The Era of the Empresarios", was all about the re-foundation of Texas by Americans. For the experimental group, it was designed to use worksheets to follow the comic book. While preparing the worksheets, the objectives in the course book were taken into account.

For the implementation, the comic book "A Cartoon History of Texas" was bought for each student in the experimental group. A three-week implementation process was designed for the unit "Americans Settle in Texas" with the comic book "A Cartoon History of Texas" was started in January. There were three social studies lessons each week, and students in the experimental group were expected to read all of the part three "The Era of the Empresarios". On the other side, students in the control group followed the course based on textbooks.

In the first lesson of the first week, the implementation process was told to the students in two groups and the aim was explained. Then, pre-test for both motivation and academic performance was done. In the experimental group, comic books were used as supplementary material. For example, the teacher asked the students to open their comic books (the related part), look at the pictures and tell him what they see. From time to time, teacher made explanations about the events and asked comprehension questions to the students and he used a circulation of reading the comic book. For the students in the control group, the teacher and social studies textbook acted as main instructional sources for teaching. For three weeks, the implementation was preceded in this way. At the end of the three weeks, same tests were implemented as posttest.

#### ***Data Collection Tools***

For the research questions aimed to investigate students' motivation and achievement, two different data collection tools were used in this study. For the motivation phase of the study, a previously developed scale was determined to be used. Thus, the literature was reviewed and Pintrich's motivation scale (1991) was found to be compatible with the study as it involves goal orientation, intrinsic value, task value, learning belief, self-efficacy and exam anxiety sub-scales. The scale has been used in the field of education for a long time and it was tested for reliability and validity (Pintrich, Smith, Garcia, & McKeachie, 1993). It consists of 81 items; however 31 of them are about motivation while other 31 of them are about cognitive skills and 19 are about students material use management. As the sub-scales are determined to be used separately (Altun & Erden, 2006), the motivation phase was used in this study. *Goal orientation* sub-scale was to measure students' self-directions of themselves towards lesson goals ( $\alpha=.62$ ). *Intrinsic value* was aimed to measure students' inner motivations to study and learn for the lesson ( $\alpha=.74$ ) while *task value* sub-scale aimed to measure students' feel for lesson tasks ( $\alpha=.90$ ). *Learning belief*, on the other hand, measures the beliefs of the students about their learning process and activities ( $\alpha=.68$ ), and *self-efficacy* measures students' reflections about their competence ( $\alpha=.93$ ). Lastly, *exam anxiety* measures the level or the presence of students' concerns –or stress- for evaluation tests ( $\alpha=.80$ ). In this study, the reliability was found as .87 which means that the scale was reliable for the sample of the study.

For the achievement phase of the study, an achievement test was designed in cooperation with the lesson teacher, the expert and the researcher. As the previous tests of social studies lesson were done in open-ended question type, it was decided to use the same exam type for scientific reasons. This way, the implementation process was the experimental variable and other variables kept constant. So, the objectives and table of specifications of the unit were taken into consideration while preparing the pre and post-test. An expert (doctor in social studies department), two other PhD students and classroom teacher controlled the exam and the grading rubric prepared by the researcher and the minor changes were done based on their feedback.

#### ***Data Analysis***

Motivation and achievement tests were analyzed with SPSS 22. Although the number of participants was low to use parametric tests, we used them because the data was normally distributed (Tabachnick & Fidel, 2015). Firstly, control and experimental groups' pretest scores were compared by

using independent sample t-test. Due to the small number of the data, ANOVA tests could not be used (Miller, 2017). Then experimental group's progression from beginning to the end of the study was analyzed by using paired sample t test. We didn't do the same analysis for the control group because we wanted to investigate how comic books effected the students' motivation. Lastly, groups' posttest scores were compared with each other by using independent sample t-test. Same way was used for both of the tests in the study.

## Results

### *Findings Based on the Motivation Scale*

The main aim to assess motivation was to evaluate the effect of comics use in social studies lesson, so the scale was used at the beginning and end of the study for both of the groups. Table 2 shows the pretest scores of both of the groups with respect to the dimensions of the motivation scale.

**Table 2.** Pretest Scores of the Groups Based on Each Sub-Dimension

Sub-Dimensions of the Motivation Scale	Control Group (n=20) Mean (SD)	Experimental Group (n=19) Mean (SD)
Extrinsic Goal Orientation	23.16 (2.21)	23.08 (2.01)
Intrinsic Value	21.28 (3.71)	21.38 (3.91)
Task Value	33.02 (4.30)	33.60 (6.57)
Learning Belief	21.90 (2.96)	21.27 (3.80)
Self-Efficacy	35.85 (5.15)	36.65 (6.81)
Exam Anxiety	29.20 (4.40)	28.69 (6.34)

Independent sample t test was implemented to compare each sub-dimension of the motivation scale and the results showed that there were no significant differences between the classes at the pretest (for extrinsic goal orientation  $t=1.897$ ,  $p=.198$ ; for intrinsic value  $t=3.536$ ,  $p=.072$ ; for task value  $t=6.668$ ,  $p=.083$ ; for learning belief  $t=6.142$ ,  $p=.102$ ; for self-efficacy  $t=5.060$ ,  $p=.092$ ; for exam anxiety  $t=2.547$ ,  $p=.126$ ).

Table 3 shows that posttest scores of control and experimental groups with respect to the motivation scale's sub-dimensions.

**Table 3.** Posttest Scores of the Groups Based on Each Sub-Dimension

Sub-Dimensions of the Motivation Scale	Control Group (n=20) Mean (SD)	Experimental Group (n=19) Mean (SD)
Extrinsic Goal Orientation	23.36 (2.11)	23.63 (2.97)
Intrinsic Value	21.38 (4.01)	22.48 (3.39)
Task Value	34.15 (3.65)	35.03 (3.10)
Learning Belief	23.20 (3.06)	27.21 (3.43)
Self-Efficacy	38.95 (4.35)	40.85 (5.50)
Exam Anxiety	29.05 (3.56)	26.56 (6.31)

Separate t-tests showed that experimental group increased its score on the motivational scale significantly ('Experimental Group' for extrinsic goal orientation  $t=1.09$ ,  $p=.100$ ; for intrinsic value  $t=2.50$ ,  $p=.010$ ; for task value  $t=1.76$ ,  $p=.020$ ; for learning belief  $t=2.05$ ,  $p=.040$ ; for self-efficacy  $t=5.80$ ,  $p=.000$ ; for exam anxiety  $t=-1.23$ ,  $p=.010$ ). After that independent sample t test was used again to compare groups' posttest scores with each other with respect to each sub-dimension of the scale. Findings showed that experimental group significantly different mean scores than their counterpart (for extrinsic goal orientation  $t=9.546$ ,  $p=.011$ ; for intrinsic value  $t=42.426$ ,  $p=.001$ ; for task value  $t=16.341$ ,  $p=.004$ ; for learning belief  $t=16.970$ ,  $p=.009$ ; for self-efficacy  $t=26.870$ ,  $p=.001$ ; for exam anxiety  $t=38.887$ ,  $p=.001$ ).

According to the results of motivation scale, motivation of students in the experimental group was affected positively by the use of comics in social studies lesson than students in the control group. Furthermore, students' motivation in the experimental group was analyzed from beginning to the end of the study and released that students motivation was increased significantly except for extrinsic goal orientation sub-dimension of the motivation scale. For intrinsic value, the difference between the pre and post-test was statistically significant ( $p < .05$ ). Intrinsic value could be explained as the feeling a students has about the necessity of his/her learning for the unit/lesson. It seems that comics use in social studies lesson increased the intrinsic value of the lesson. For the extrinsic goal orientation sub-scale, which is used to determine the effect of outer effects on students' will to learn, no significant difference was observed ( $p > .05$ ).

The use of comics in the social studies lesson required learners to engage in different tasks than they did in their ordinary lessons. In their ordinary lessons, they needed to deal with their course books, assignments and readings from original texts. However, in the implementation process, students in the experimental group needed to read the comic book in the classroom, analyze the pictures, and comment on the events. And the findings revealed that students' task value, which determines their feeling about the task they are engaged in (interesting, important, etc.), was increased by the implementation process significantly ( $p < .05$ ). Also, it was seen that students in the experimental group felt more positive about the results/awards their learning would bring them after the implementation process.

The most significant result was received from the self-efficacy sub-scale ( $p < .05$ ). Thus, it could be declared that students felt more confident about their success and their ability to perform well in the tasks. Comics use in social studies lesson increased students self-efficacy about social studies lesson. Finally, exam anxiety results show that students felt less anxious about exam after the implementation process of comics use. The post-test result of exam anxiety sub-scale is significantly different that the pre-test result ( $p < .05$ ).

All in all, it could be stated that students' motivation increased after the implementation process for intrinsic value, task value, learning belief, self-efficacy, and decreased for exam anxiety sub-scales. For extrinsic goal orientation, no significant difference was observed.

#### *Findings Based on the Achievement Test*

The mean scores and standard deviations were calculated to determine the achievement level of the students (Table 4). When Table 4 is analyzed, it is observed that whereas students' mean scores are at medium level at the beginning of the study, they are above the medium level at the end of the study especially for the experimental group.

**Table 4.** Achievement Scores of the Groups from Pretest to Posttest

	<b>Control Group (n=20)</b>	<b>Experimental Group (n=19)</b>
	<b>Mean (SD)</b>	<b>Mean (SD)</b>
Pretest	47.75 (14.72)	50.58 (19.21)
Posttest	61.50 (12.53)	73.71 (16.76)

To see whether there was a significant difference between pretest scores of each group, independent sample t test was used. The result of the t test revealed that both of the groups were at similar achievement level at the beginning of the study ( $t = .332$ ;  $p = .751$ ). After that pretest-posttest comparisons were done for each group by using paired sample t test analysis. The t-test analysis revealed that each group increased their achievement scores significantly (for control group,  $t = 5.114$ ,  $p = .014$ ; for experimental group,  $t = 4.982$ ,  $p = .016$ ). Then control and experimental groups' posttest scores were compared by using independent sample t test. The result showed that students in the experimental group reached significantly higher achievement score than the students in the control group ( $t = 2.443$ ,  $p = .046$ ).

## Discussion, Conclusion and Suggestions

Social studies is a lesson that reflects topics of social sciences and citizenship knowledge such as history, geography, sociology, philosophy, political science and economy and then combining these learning areas under a unit (Sönmez, 2014). Furthermore, words, tellings, stories, and conversations have high importance in social studies. It is rather difficult to grasp students' attention and keep them motivated in the classroom (Barton & Levstick, 2015; Range, 2011). Although teachers are found to be eager to use different materials (Sağlam, 2011), the graduates of Texas Tech University list 'motivation' as an important difficulty in teaching social studies (Range, 2011). It is hypothesized that engaging materials are necessary for better motivation and achievement in social studies lessons (Olayinka, 2016). Kids, teenagers and adults, on the other hand, have read comics, for a very long time (Arlin & Roth, 1978). People describe them as enjoyable reading materials and they were used in education in early 90s (Syma & Weiner, 2013, p. 15; Sones, 1944). Also, İlhan (2016b) states comics are used in education for various purposes such as motivation, knowledge transmission in different ways, and it is generally found as effective. In this study, comics were investigated for their use in social studies and they were found to be effective in terms of students' motivation and achievement.

For motivation, a long-termed scale (MLSQ) (Pintrich, 1991) was used to determine the level of students' motivation. The hypothesis tested here was whether the use of comics would act as a differentiator in students' motivation about social studies, so pre and post-test technique was adopted. Out of the six sub-scales of MLSQ, five of them were found to be significantly different: intrinsic value, task value, learning belief, self-efficacy, and exam anxiety. Of these components, intrinsic value is regarded as a key determiner for student enjoyment and success (Augustyniak Ables, Guilford, Lojan, Cortright, & DiCarlo, 2016). Also, the link between achievement and intrinsic value is found to be bidirectional as previous achievement reinforces intrinsic motivation in a longitudinal study (Garon-Carrier et al., 2016). Similar to intrinsic value, learning belief has been found to hold a positive relationship with student achievement (Ren & Bai, 2016). Moreover, learning belief of students is seen as a predictor of their learning strategies, too (Şahin, Deniz, & Topçu, 2016). Thus, the fact that comics affect achievement, intrinsic motivation and learning belief positively could be regarded as a benefit. Also, task value students attribute to a lesson or activity is regarded as an important component in education as it fosters student engagement (Johnson & Sinatra, 2013) in parallel with this study.

Self-efficacy, on the other hand, is also regarded as a significant element in education and its roots are investigated (Lin, 2016) and it has been found as positively related with academic success (İşgör, 2016). Furthermore, different ways have been tried to increase self-efficacy such as building a new psychological model (Ikonomopoulos, Vela, Smith, & Dell'Aquila, 2016). Exam anxiety, on the other hand, has been found as a facilitator or metacognitive skills such as self-efficacy and negatively related with academic success (Barrows, Dunn, & Lloyd, 2013; İşgör, 2016). In other words, exam anxiety is a strong predictor of student success and metacognitive abilities. However, extrinsic value was not found to be significantly different. As an explanation for this, the importance of extrinsic value in motivational strategies should be explained. Extrinsic value is the motivational tool for one coming from outside. For example, a bicycle for a student as a reward for passing his/her lesson in an extrinsic motivational tool. In this example, the bicycle and the lesson has no direct relation and the aim of the student is never to pass the lesson but to get the bicycle. Extrinsic motivation is criticized for the long-term effect. For one year, it could be possible for the family to buy the bicycle, but it is a big question mark for what will happen in the following year. It is not possible to come up with a new and bigger reward for passing lessons every year or semester, and even if it were possible it would not realize the aim of motivating students about the lesson. Although extrinsic motivation has been found as effective over student attitude and behaviors (Emmett, 2013); the long-term effect is highly determined by intrinsic motivation (Corpus & Wormington, 2014). In parallel with this, it does not seem to be a big loss for the use of comics in social studies not to increase extrinsic motivation.



As for academic achievement, various components have been analyzed to increase students' achievement level such as different grading systems (Hohner & Tsigaris, 2010), school climate (Sulak, 2016), parental effects (Hayes, Blake, Darensbourg, & Castillo, 2015), and social status (Masland & Lease, 2016). Moreover, it could be asserted that the main aim of educational programs is to increase the efficiency of learning. As a concrete evidence of learning, academic achievement is taken into consideration. In parallel with this notion, an achievement test was applied after a long preparation process to understand the effect of comic books use on students' academic achievement. The test was prepared with open-ended questions to be compatible with the previous tests done at school. The objectives were taken into consideration and expert opinion was received. The achievement test was applied in pre and post-test format as in the motivation and it was found that post-test was significantly different than the pre-test. In other words, comics use in social studies lesson in 7<sup>th</sup> grade in Texas, U.S.A. increased the achievement of the students. Similarly, comics use was found to be positively affecting 6<sup>th</sup> graders' achievement of social science lesson (Topkaya, 2016).

At the end of the study, it was found that comics use in social studies in 7<sup>th</sup> grade increase the motivation and the academic achievement of the students. Although the number of the sample was 19 students, both the motivation and the achievement level of the students were differed by the use of comics. From this point, it could be declared that social studies lesson could be practiced better with the use of comics.

As a recommendation for practice, it could be stated that the U.S has advantages in terms of comics sources. There are numerous comic books in the U.S about the history of America and the states. As Texas is regarded as a significant state for combining with the U.S.A. with its own will and its flag is of the same height with the U.S.A. flag, it could be possible to teach social studies with comics. The comic book used in this study "A Cartoon History of Texas" includes the history of Texas and it could be adopted in the social studies lesson. For different levels at school, the book could be revised and used as the main course book or complementary material.

Also, comic books could be used for educational purposes and enrich lesson environments. Both printed and web-based comic books could be advantageous for different implementations in related lesson or areas.

Lastly, it is recommended for further research to go into qualitative inquiry for the use of comics in social studies lesson and expand the sample size for the quantitative analysis. All in all, comics use in social studies lesson in Lubbock, Texas, U.S.A. was found to be positively effective in motivation and academic achievement.

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