

The Development of Integrative Comic as a Media and Materials in Theme Cita-Citaku Class IV Basic School

Muhammad Iqbal Al Ghozali*, Sarkadi and Rusmono

Universitas Negeri Jakarta, Jalan Rawamangun Muka, Kota Jakarta Timur, DKI Jakarta, Indonesia

Received 05 May 2018, Accepted 07 July 2018, Available online 09 July 2018, Vol.6 (July/Aug 2018 issue)

Abstract

This study aims is to develop integrative comics as a medium and additional teaching materials on thematic curriculum lesson 2013 theme 6 aspect of class IV of elementary school. This research uses research and development method (R & D) Dick and Carey model with 10 stages. The study was conducted on the fourth grade students of SDN Majalengka Kulon II and SDN Majalengka Wetan VII, amounting to 75 students. Instruments used in this study in the form of interviews, questionnaires, and test results learning. Validation results from the three experts get an average media expert score of 4.42, language experts 4.2, and material experts 4.58. Thus it can be stated that the media and comic integrative teaching materials worthy to be used in the learning process in primary school with the condition of revision in accordance with the advice given by the three experts before The use of media and comic learning materials also get a very good response from students with a percentage individual test 85.8% and small group test 85.3%. The effectiveness of the use of media and integrative comic learning materials can be seen from the learning outcomes after conducting field trials by providing pretest and postes questions. The data obtained are $t = 10,009$ with $df 74$ and p -value $0,000 < 0,05$ or H_0 is rejected. Thus it is concluded that there are differences in learning outcomes in learning the theme of 6 goals between before and after using media and integrative comic learning materials.

Keywords: Media, teaching materials, comic, integrative.

1. Introduction

In 2013 the Indonesian government formally adopted a new curriculum as a renewal of the old curriculum of the Curriculum 2013. Important changes in the Curriculum 2013 are on Graduate Competency Standards (SKL), process standards, content standards, and assessment standards. In addition, the 2013 curriculum also implements a thematic learning model system by integrating several subjects tied into a theme. Thematic learning is a pedagogic model based on the choice of theme or topic of study (Medellu, 2015: 111) The thematic teaching objectives according to Hajar (2013) are 1) Making a learning activity between teachers and learners more focused on the process than the outcome, 2) Provide broad opportunities for learners to learn contextually, 3) Develop self-confidence and independence of learners, 4) Encourage learners to conduct their own research, 5) Encourage learners to be able to find out themselves about the concept -the concept of knowledge, 6) and familiarize the learners to look at issues from different facets. The other advantages

of integrated learning are: 1) improvement of effective communication between trainers and learners; 2) enhanced effective collaboration among students; 3) enhancing new student-centered knowledge and relationships; 4) improved learning and flexible teaching; and, 5) a combination of appropriate technology and learning processes (Pima, 2018: 1).

In its implementation, Curriculum 2013 until now still that are not implemented simultaneously by all schools in Indonesia. Only a few schools are used as pilot schools in applying the 2013 curriculum. There are some obstacles in implementing this new curriculum. One of them is the readiness of teachers in conveying learning using thematic model of curriculum 2013 as proposed by Istingsih (2017: 64) that, teachers in Indonesia are not ready to apply thematic learning method. In some universities and higher education do not apply learning and present thematic learning methods as course material, but not to apply them in their real daily life. The other opinions related to obstacles in implementing the curriculum of 2013 are proposed by Aedi and Nurrohmatul (2016: 136): 1) The difficulty of changing teacher's mindset, 2) It is difficult to change the learning process from teacher center to student center, 3) Culture of reading and researching in the teacher's self is still low,

*Corresponding author's ORCID ID:0000-0001-5718-6393

DOI: <https://doi.org/10.14741/ijmcr/v.6.4.14>

4) the lack of mastery of information technology to the teacher, 5) and the teacher's tendency is more emphasis on cognitivism alone, but there are other aspects that must be observed by the teacher of affective and psychomotor aspects.

To see the actual conditions in the field related to obstacles and obstacles experienced by teachers and students on the thematic lesson of the 2013 curriculum, then the needs analysis to some schools. Among them are SDN MajalengkaKulon II and SDN MajalengkaWetan II. Based on interviews with teachers from both schools, that; 1) The school still needs additional teaching materials, 2) The material on the teaching material is too shallow, 3) The teaching materials used are not fully compiled in an integrated manner because the movement between subjects can still be felt. As for the responses from the students, they expect a media and learning materials based on images / visuals and associated with cartoon image objects.

Picture-based learning (visual) is very well used for primary school children especially if the learning styles of children in the school / class tend to prefer learning delivered through visual media as proposed by Aishami (2015: 545) that visual / visual learning effective to learn if it is properly connected to the student learning style and planned according to desired learning outcomes. However, according to Bingham (2016: 5) revealed that if visual elements and words (text) are presented simultaneously, students will have the opportunity and accuracy to build their mental models and build relationships between them. The above opinion is also reinforced by the opinion of Merc (2013: 54) which confirms Double Coding Theory (DCT) that students better understand the text readings accompanied by visual. Based on all the above opinions, then creating a teaching material that combines verbal and visual elements is an excellent solution in mangatasi constraints faced by teachers while meeting student expectations related to the teaching materials used in the learning process curriculum 2013.

Many pictorial story types, one of which is a comic. According to McCloud (1993: 5) comics are an image that is captured (adjacent, adjacent, adjacent) with other images in order, in sequence, and connected to each other to provide information to the reader. Comics can visualize the expression of the writing form on the story into the image form. Excess comics according to Arroio (2011: 97) is that comics can serve as a cultural tool or as a vehicle in which scientific information can be communicated to the students. Poggiali (2014: 67) also explained that the advantages of comics as a stepping stone for students to learn to enjoy a more complex text. According to Georgaka (2016: 244), the findings of his research show many positive effects in teaching English and are specialized in teaching writing skills, since writing skills are perceived as complex and difficult processes. In addition to other comic advantages according to Manchester (2017: 4) that comics can be used as a

productive pedagogical tool to teach critical forms by engaging visual with the text, because it will make learning more meaningful.

Based on the above description, then selected the comic to serve as a medium and integrated learning materials that is for reasons that are: 1) Instructional materials based on comic books will remove the partition (separator between subjects) so that the movement of each subject will not be felt, 2) based comic book presents a story and in it there are some characters. The storyline in the comic will be arranged so that it can be linked with the lesson material that is in the theme of my dreams like subjects IPS, IPA, Bahasa Indonesia, PPKn, and SBDP, 3) comic-based teaching materials can be included moral values and exemplary based on the content of the story and the nature of each character, 4) The comics can be used as a single media in learning media Cita-citaku and can also be assisted by other media, 5) Increase interest in reading students because it contains interesting and colorful images that can foster student motivation, 6) Increase the treasury of teaching materials so that students are not fixated on the student book given by government.

The purpose of research integrative comic development as media and teaching materials is to know the process of developing integrative comics as media and teaching materials on the theme Cita-citaku in the fourth grade of elementary school, and the effectiveness of integrative comics to be used as media and teaching materials on the theme Cita-citaku in grade IV of elementary school.

2. Methods

This research uses research development method (Research & Development). The model chosen is a model developed by Dick & Carey. According to Dick & Carey's development model the research is divided into ten steps: 1) Identify instructional goal(s), 2) Conduct instructional analysis, 3) Analyze learners and contexts, 4) Write performance objectives, 5) Develop assessment instruments, 6) Develop instructional strategy, 7) Develop and select instructional materials, 8) Design and conduct formative evaluation of instruction, 9) Revise instruction, and 10) Design and conduct summative evaluation. (Dick and Carey, 2009:6-8)

Instruments used to test the feasibility and effectiveness of integrative media and comic learning materials in the form of interviews, questionnaires, and tests. Interviews are used to obtain data on the results of feasibility tests of materials, media, and language experts. In the interview instrument, experts will be asked for comments, suggestions, feedback, criticism, and improvement of any indicator that has not achieved maximum results. Questionnaires are used to obtain results data from the appropriateness of materials experts, media experts, linguists, and student eligibility tests, whether during individual, small group or field trials.

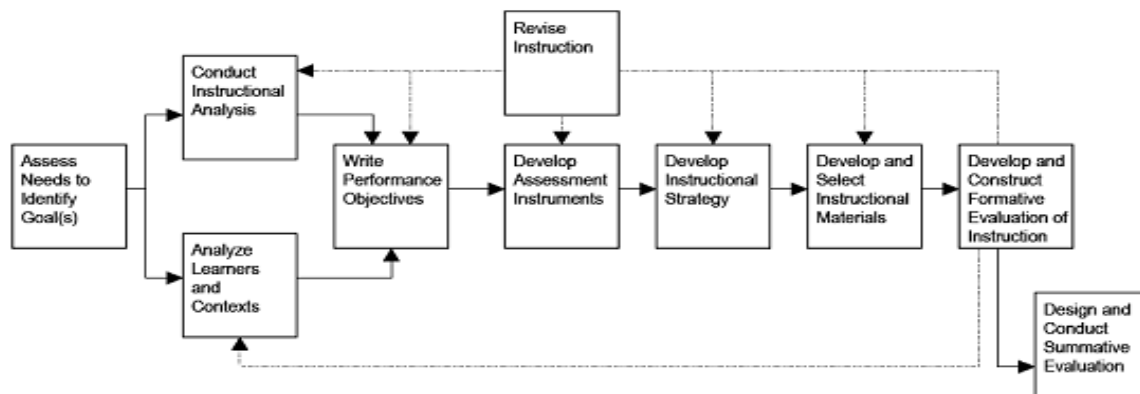


Figure 1 Dick and Carey Design Model

The test is used to measure achievement of learning objectives. There are two kinds of tests that are tests used to determine the achievement of goals before implementing the product (pretest) and after implementing the developed product (posttest). The goal is to know if there are significant differences in values.

3. Results

Media feasibility is to determine whether or not a media feasible to be used in the learning process after passing a series of validations, namely theoretical validation and empirical validation. Theoretical validation is validation by experts / experts associated with the media. While empirical validation is done to see the response of user object that is student.

Theoretical validation is performed by the expert in relation to the media used. The experts are experts in language, media, and materials. The results of interviews with experts related to the effectiveness of the use of media and integrative comic learning materials are as follows.

3.1 Language Expert Validation

The linguist validation process uses an interview instrument consisting of 10 questions and a questionnaire with 10 statements. Based on the results of questionnaires and interviews above with language experts showed that the media products and comic integrative teaching materials get an average score of 4.2. Thus it can be concluded that the media and comic integrative teaching materials deserve to be subsequently used in primary school learning with appropriate revisions of suggestions.

3.2 Media Expert Validation

The media expert's validation process uses an interview instrument consisting of aspects of media effects on the learning strategy and the comic book integrative display aspect with a total of 14 questions and a questionnaire with 14 items of statement. Based on the results of questionnaires and interviews above with media experts

showed that media products and comic integrative teaching materials get an average score of 4.42. Thus it can be concluded that the media and comic integrative teaching materials deserve to be subsequently used in primary school learning with appropriate revisions of suggestions.

3.3 Material Expert Validation

The material expert validation process uses 12 questionnaire interview instruments and a questionnaire with 12 statements. Based on the results of questionnaires and interviews above with the material experts showed that the media products and integrative comic learning materials get an average score of 4.58. Thus it can be concluded that the media and comic integrative teaching materials deserve to be subsequently used in primary school learning with appropriate revisions of suggestions.

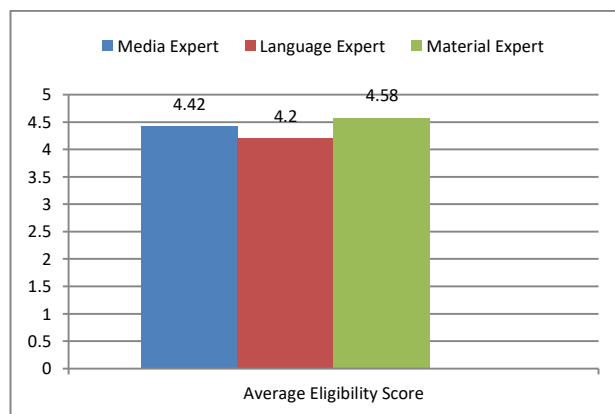


Figure 2 Experienced Expert Feasibility Score

3.4 One-To-One Trying Out

This trial was conducted on 5 students with high intelligence, moderate, and low. Pursuant to result of questionnaire show that media and learning materials of comic integratif have got very good response from student with percentage 85,86%.

3.5 Small Group Tryout

Small group trial conducted on students amounted to 10 students with low, moderate, and high intelligence students Based on the above questionnaire results showed that media and comic integrative teaching materials have obtained excellent response from students with 85.3% percentage. The next step is to conduct field trials with more students.

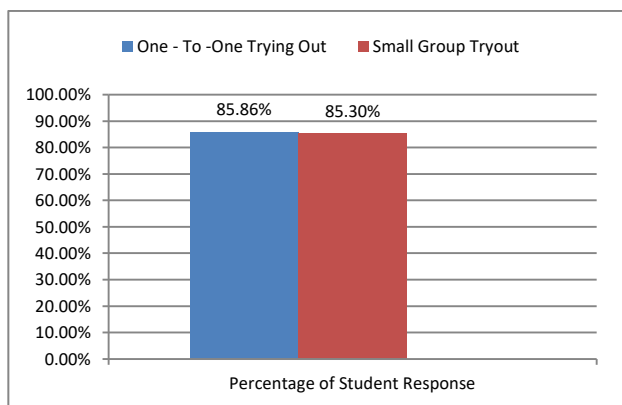


Figure 3 Percentage of Student Response

3.6 Effectiveness Test

The result of pretest and posttest score on 75 students from SDN MajalengkaKulon II and SDN MajalengkaWetan VII can be seen difference. The lowest pretest value obtained is 24 and the highest is 94. While the lowest postes value obtained is 42 and the highest is 96. The data can be described by analysis and using t-test.

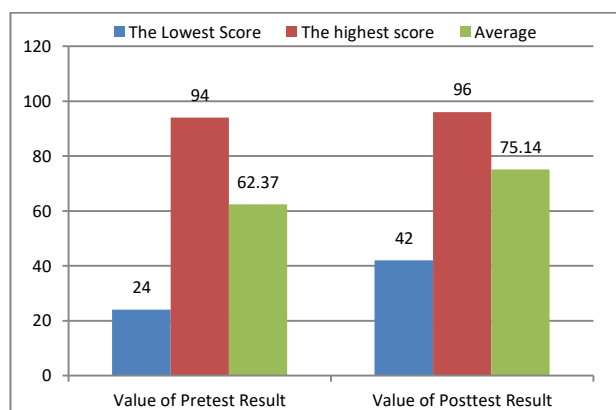


Figure 4 Average Results of Pretest and Postes Value

Table 1 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretes	62.3733	75	14.22861	1.64298
	postes	75.1467	75	13.75922	1.58878

Table 2 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pretes&postes	75	0.689	0.00

Table 3 Paired Samples Test

		Paired Differences				t	df	Sig. (2 tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	pretes - postes	-1.28E+01	11.05218	1.2762	-15.31621	-10.23046	-10.009	74	0

In table 1 paired samples statistics showed that in learning the theme of 6 ideals before using the media and comic learning materials integrative average learning outcome value is 62.37 with standard deviation 14.22 while after using the product average value of results his study increased to 75.14 with a standard deviation of 13.75.

In table 2 paired samples correlations, obtained correlation coefficient score of learning outcomes theme 6 goals between before and after given media and integrative comic learning materials that is equal to 0.689 with p-value 0.000 <0.05 meaning significant.

In table 3 paired samples test obtained t = 10,009 with df 74 and p-value 0,000 <0,05 or Ho rejected. Thus it is concluded that there are differences in learning outcomes in learning the theme of 6 goals between before and after using media and integrative comic learning materials.

4. Discussion

In the process of implementation of the 2013 curriculum in schools is inseparable from the constraints experienced by teachers and students. The constraints experienced such as the assessment system is too complicated, limited

teaching materials and media, insufficient time allocation and others. Constraints in the limitations of teaching materials and media became the main focus in this study. The textbooks used in schools today have limitations on material content. The cause is only certain material from each subject that can be integrated with other subject matter in a theme. The integration of each subject in it still feels the boundary separator. The teachers still rarely use the media when teaching. Though many choices of media that can be used by teachers.

The solution to overcome the limitations of teaching materials and media in integrated thematic lessons is to develop new comic-based teaching materials. The results of research on the development of integrative comics as a medium and teaching materials on the theme of my ideals found that comics can increase the interest and motivation of students to read. This is in accordance with the results of research conducted by Arini (2017: 71) support that the use of comics as a learning aid can increase students' learning interest is slow learning in normal classes / normal. Another study conducted by Kerneža (2016: 125) assumed that the use of comics would have a positive effect on reading literacy and reading motivation of students, while also reducing the differences mentioned among boys and girls. Comics can increase the motivation and literacy of reading students without distinguishing the sex of both male students and female students.

It can be concluded that the relationship between the results of research conducted by Arini and Kerneža with research conducted by researchers that have similarities in comic ability to increase student reading interest. However, integrative comics not only increase the motivation of learning interest in students who have a level of intelligence below the average course, but also can increase the motivation of interest in learning at all levels of students' intelligence, both male and female students. Increased interest and motivation to read students can be seen on the results of student questionnaires.

Integrative comics can also help students to understand the meaning of a reading. This is supported by the results of research conducted by Weber (2013: 2) if well explored in the classroom, comics, with its distinctive features, have great power to tell stories and convey messages, contribute to stimulate the active participation and creativity of students, along with spoken and written language and even the development of technological capabilities. Similar results by Cayir (2015: 1115) suggest that first-grade students at instructional reading levels have better visual perception skills. It has been seen that students with better visual perception skills score better at reading rates, reading comprehension and reading errors.

From both research results conducted by Cayir and Weber can be concluded that the picture in a paper can improve students' understanding in interpreting the message contained in the text reading and can increase

student participation and creativity in the learning process. The relationship between the two research results above with the results of research conducted by researchers is the similarity in terms of comic content content that contains the visual elements (pictures) and writing and also contains elements of the story. Because it has the same content, the integrative comics also have the same ability to increase students' understanding of the meanings and messages contained in a reading. The results can be seen from the improvement of student learning outcomes after using media and integrative comic learning materials.

The ease of the students in understanding the meaning and the message on the text of reading in the media and the integrative comic learning materials can not be separated from the combination of the elements of the image (visual) and the verbal elements (word). Research conducted by Lundy (2015: 1059) that uses multimedia images as "visual text" help in uncovering the representation of eternal and socio-cultural perspectives that offer students the opportunity to improve media literacy them, reflect, and make critical connections through the use of some channels of discourse. Cook research results (2017: 29) supports the above results that follow the same advice, we have experienced success implementing this unit with the students and help them to appreciate and build the meaning of the chemicals that are created through a couple of text and images. Our students demonstrate the ability to engage in analysis, critique, and discussion of the complex problems (ie., Race, gender, sexuality) that are relevant to their lives, report increased confidence in the visual analysis, and consider themselves more ready to plunge into the communities in which they live. Relates to the ability of comics that can improve the skills of analysis and critical attitude, the results of research conducted by Krishnan (2016: 281) also shows the results of the research are almost the same that the major implications of this study that the comic is an effective teaching tool for improving teaching and learning, so that interesting to learn Science. The students are able to hone their thinking skills, because they will become active learners and teachers can achieve the learning objectives effectively and easily. The results are also confirmed by the results of research conducted by Raiyn (2016: 120) that visual learning offers better results than traditional learning systems. In primary and secondary schools, the effect of visual learning on developing HOT skills (high order thinking) of students is important.

The results of research conducted by Lundy, Cook, Krishnan, and Raiyn showed that the combination of visual and verbal elements can improve student representation of text readings that he read. In addition, the combination can also hone HOT skills (high order thinking), critical attitude and make students active in the discussion. The linkage of the results of the four studies above with the media and the integrative comic learning materials that have some similarities that is in improving

the representation, critical attitude, and the liveliness of students in the discussion. It can be seen from the learning model combined with media and integrative teaching materials such as scientific learning model and cooperative model. Scientific learning model can improve the analysis skills and critical attitude of students, while cooperative model to improve students' activity in group discussion.

The conclusions of all the above research results are related to comic skills in improving reading interest, understanding, analytical skills, critical, and student participation in group discussions, contained in all media and integrative comic learning materials. This integrative comic update is compared to other comics that lies in the comic story content combined with subjects covering five subjects at once ie subjects of Natural Sciences, Social Sciences, Indonesian Language, Pancasila and Citizenship Education, and Cultural Art while in other learning comics usually only mencakup one subject only.

Conclusion

The conclusion of the result of research of media development and integrative teaching materials theme of my aspiration of class IV primary school which refers to problem formulation that is as follows.

1. The development of media and integrative teaching materials on the theme of my aspirations of the fourth grade of elementary school produces a product in the form of a printed book that can be used as a medium and as well as teaching materials by teachers and fourth graders of elementary school themes of Cita-citaku.
2. The development of integrative media and comic learning materials has passed the theoretical validation by three experts namely media, material, and language experts. Validation results from the three experts get an average media expert score of 4.42, language experts 4.2, and material experts 4.58. Thus it can be stated that the media and comic integrative teaching materials deserve to be used in the learning process in primary school with the condition of revision in accordance with the advice given by the three experts before.
3. The development of integrative media and comic learning materials has passed the empirical validation / trials of individual testing and small group testing to see the students' responses to the learning process using the product. Pursuant to result of questionnaire of individual test show that media and learning materials of comic integratif have got very good response from student with percentage 85,86%. While the results of small group questionnaire data obtained a very good response from students with a percentage of 85.3%.
4. Effectiveness of the use of media and comic integrative teaching materials can be seen from the results of learning after conducting field trials by providing a matter of pretest and postes. The data obtained are $t = 10,009$ with $df = 74$ and $p\text{-value} = 0,000 < 0,05$ or H_0 is rejected. Thus

it is concluded that there are differences in learning outcomes in learning the theme of my 6 goals between before and after using media and integrative comic learning materials.

References

- [1]. Aedi, Nurdan Nurrohmatul, Amaliyah. (2016). *Manajemen Kurikulum Sekolah*, Yogyakarta: Gosyen Publishing,
- [2]. Aisami, Riad S. (2015) *Learning styles and visual literacy for learning and performance*. Faculty of Instructional Technology, Troy University, Troy, Alabama, USA, *Procedia - Social and Behavioral Sciences* 176.
- [3]. Arini, FitriDwi.(2017).*The Use of Comic as a Learning Aid to Improve Learning Interest of Slow Learner Student*. *European Journal of Special Education Research*. European Journal of Special Education Research, Sebelas Maret University, Vol. 2, Issue 1.
- [4]. Arroio Agnaldo. (2011). *Comics As A Narrative In Natural Science Education*. Faculty of Education, University of São Paulo, São Paulo, Brazil. *Western Anatolia Journal of Educational Sciences (WAJES)*, ISSN 1308-8971.
- [5]. Bingham, Tricia, Reid, Stephanie, danIvanovic, Vanda. (2016). *Paint Me a Picture: Translating Academic Integrity Policies and Regulations Into Visual Content for an Online Cours*, University of Auckland. *International Journal for Educational Integrity*, Vol. 12(2).
- [6]. Carey, James O., Carey, Lou, dan Dick, Walter. (2009). *The Systematic Design of Instruction*. New Jersey: Merrill is an imprint of PEARSON.
- [7]. Çayır, Aybala. (2017). *Analyzing the Reading Skills and Visual Perception Levels of First Grade Students*. Department of Primary School Teaching, Faculty of Education, Aksaray University, Turkey. *Universal Journal of Educational Research* 5(7).
- [8]. Cook, Mike P. (2017). *Using Superheroes to Visually and Critically Analyze Comics, Stereotypes, and Society*. *SANE journal: Sequential Art Narrative in Education*: Vol. 2 :Iss. 2 , Article 1.
- [9]. Georgaka, Angelik iDeligianni. (2016). *Creating digital comics to motivate young learners to write: a case study*. *Research Papers in Language Teaching and Learning*. ISSN: 1792-1244 Vol. 7, No. 1.
- [10]. Hajar, Ibnu. *Panduan Lengkap Kurikulum Tematikuntuk SDMI*.Yogyakarta: Diva Press, 2013.
- [11]. Istiningsih. (2017). *Empowerment of Teachers in Implementing Thematic Learning Method*, Faculty of *Tarbiyahand Teaching*. State Islamic University 'SunanKalijaga' Indonesia, *Journal of Education and Practice*. ISSN 2222-1735 Vol.8, No.3.
- [12]. Kerneža, Maja. (2016). *Comics as a Literary-Didactic Method and Their Use for Reducing Gender Differences in Reading Literacy at the Primary Level of Education*. Faculty of Education, University of Maribor, Slovenia ,Vol 6 (2).
- [13]. Krishnan, Shamini. (2016). *The Effectiveness Of Using Comic To Increase Pupils' Achievements And Higher Order Thinking Skills In Science*, Faculty of Education. UniversitiKebangsaan Malaysia, Bangi, Malaysia, *International journal of English and Education* ISSN: 2278-4012, Volume:5, Issue:3.
- [14]. Lundy, April D. (2015). *Beyond the literal: Teaching visual literacy in the 21st century classroom*. Department of Mass Media Arts, Clark Atlanta University, Atlanta 30314, U.S.A, *Procedia - Social and Behavioral Sciences* 174.

- [15]. Manchester, Ashley. (2017). *Teaching Critical Looking: Pedagogical Approaches to Using Comics as Queer Theory*. University of Florida. SANE journal: Sequential Art Narrative in Education. Vol. 2 :Iss. 2 , Article 2.
- [16]. McCloud, Scott. (1993). *Understanding Comics The Invisible Art*. New York: Kitchen Sink Press.
- [17]. Medellu, Christophil S. (2015). *Democratization of Learning through Thematic Assignment*. *International Education Studies*. ISSN 1913-9020 E-ISSN 1913-9039 Vol. 8, No. 4.
- [18]. Merc Ali. (2013). *The Effect Of Comic Strips On EFL Reading Comprehension*. Anadolu University Faculty of Education, *International Journal on New Trends in Education and Their Implications*. Volume: 4 Issue: 1.
- [19]. Pima John Marco. (2018). *A Thematic Review of Blended Learning in Higher Education*. Institute of Accountancy Arusha, Arusha, Tanzania. *International Journal of Mobile and Blended Learning*. Volume 10, Issue 1.
- [20]. Poggiali, Jennifer. (2014). *Comics to the Rescue: Finding Innovative Applications for Library Digital Learning Objects*. The City University of New York. *Journal of Library Innovation*, Volume 5, Issue 1.
- [21]. Raiyn, Jamal. (2016). *The Role of Visual Learning in Improving Students' High-Order Thinking Skills*, *Journal of Education and Practice*. ISSN 2222-1735 Vol.7, No.24.
- [22]. Weber, Karen C. (2013). *Introducing Comics As An Alternative Scientific Narrative In Chemistry Teaching*. Departamento de Química, Universidade Federal da Paraíba, *Western Anatolia Journal of Educational Science*, ISSN 1308 – 8971 Cilt: 04, Sayı: 08.