

**DEVELOPING STUDENTS' CREATIVITY, WRITING SKILLS, AND  
CONCEPT MASTERY ABOUT GLOBAL WARMING THROUGH DIGITAL  
COMICS**

RESEARCH PAPER

Submitted as Requirement to Obtain Degree of *Sarjana Pendidikan* in  
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Skripsi ini diajukan untuk memenuhi salah satu syarat  
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CONCEPT MASTERY ABOUT GLOBAL WARMING THROUGH  
DIGITAL COMICS**

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iii

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**DECLARATION**

I hereby declare that the thesis entitled "Developing Student Creativity, Writing Skills, and Mastery of the Concept of Global Warming Through Digital Comics" is the author's original work, not a duplication or plagiarism of the work of other authors. Theories, opinions, and other information in this study have been quoted or in accordance with the scientific code of the academic community. This statement is made honestly and intentionally. If this thesis is proven to be a duplication or plagiarism of the work of other authors, the author will receive academic sanctions or applicable sanctions.

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# **DEVELOPING STUDENTS' CREATIVITY, WRITING SKILLS, AND CONCEPT MASTERY ABOUT GLOBAL WARMING THROUGH DIGITAL COMICS**

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## **ABSTRACT**

In this era, the growth of technology is increasing exponentially. This technology development affects several fields, one of which is in the education field in making learning media. Learning media develops technological developments. One of the media used in technology development is comics. Comics are visual media to deliver ideas through images and are combined with text for information. Comic development will now be incorporated with digital development or what is commonly referred to as digital comics. This research aims to determine the development of creativity, students' writing skills, and students' concept mastery through digital comics. This research was used one-group pre-test and post-test design. The sampling technique used in this analysis is cluster random sampling, with a total of participants who were ten students in 7<sup>th</sup> grade. This research was conducted in an Indonesian school located abroad with an online learning system. The instrument developed and used in this research was the creativity rubric consists of 5 indicators. The results showed there is no significant difference in students' creativity with the application of digital comic activities in this context. To measure students' writing skills a rubric consists of 2 scales and 4 sub-scales was used. The results showed there is no significant difference in students' writing skills. Meanwhile, the objective test consists of 18 multiple-choice questions. The results showed there is no significant difference in students' concept mastery with the application of digital comic activities.

**Keyword:** Digital Comic, Students' Creativity, Students' Writing Skills, Students' Concept Mastery, and Global Warming

# MENGEMBANGKAN KREATIVITAS SISWA, KETERAMPILAN MENULIS, DAN PENGUASAAN KONSEP TENTANG PEMANASAN GLOBAL MELALUI KOMIK DIGITAL

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## ABSTRAK

Di era ini, perkembangan teknologi semakin pesat. Perkembangan teknologi ini mempengaruhi beberapa bidang, salah satunya dalam bidang pendidikan dalam pembuatan media pembelajaran. Media pembelajaran berkembang mengikuti perkembangan teknologi, salah satu media yang digunakan dalam perkembangan teknologi adalah komik. Komik merupakan media visual untuk menyampaikan ide melalui gambar dan dipadukan dengan teks untuk informasi. Perkembangan komik kini akan menyatu dengan perkembangan digital atau yang biasa disebut dengan komik digital. Penelitian ini bertujuan untuk mengetahui perkembangan kreativitas, keterampilan menulis siswa, dan penguasaan konsep siswa melalui komik digital. Penelitian ini menggunakan *poor experimental* dengan menggunakan desain *one-group pre-test dan post-test*. Teknik pengambilan sampel yang digunakan dalam analisis ini adalah *cluster random sampling*, dengan jumlah partisipan 10 siswa pada kelas 7 SMP. Penelitian ini dilakukan di sekolah Indonesia yang berada di luar negeri dengan sistem pembelajaran online. Instrumen yang dikembangkan dan digunakan dalam penelitian ini adalah rubrik kreativitas yang terdiri dari 5 indikator. Hasil penelitian menunjukkan tidak terdapat perbedaan yang signifikan dalam kreativitas siswa. Untuk mengukur kemampuan menulis siswa juga menggunakan rubrik yang terdiri dari 2 skala dan masing-masing aspek terdiri dari 4 subskala. Hasil penelitian menunjukkan tidak terdapat perbedaan yang signifikan dalam kreativitas siswa. Sedangkan tes objektif yang terdiri dari 18 soal pilihan ganda yang diukur dengan tes kognitif menunjukkan tidak ada perbedaan yang signifikan dalam penguasaan konsep siswa.

**Kata Kunci:** Komik Digital, Kreativitas Siswa, Keterampilan Menulis Siswa, Penguasaan Konsep Siswa, dan Pemanasan Global

## TABLE OF CONTENT

APPROVAL SHEET.....	iii
DECLARATION.....	iv
ACKNOWLEDGEMENTS.....	v
ABSTRACT.....	vii
LIST OF CONTENTS.....	ix
LIST OF TABLES.....	xii
LIST OF FIGURES.....	xiv
CHAPTER I INTRODUCTION.....	1
1.1 Background.....	1
1.2 Research Problem.....	6
1.3 Research Question.....	6
1.4 Limitation of Problem.....	6
1.5 Research Objective.....	7
1.6 Research Benefit.....	7
1.7 Organization of Research Paper.....	8
CHAPTER II LITERATURE REVIEW.....	9
2.1 Digital Comic.....	9
2.2 Students' Creativity.....	10
2.3 Students' Writing Skills.....	14
2.4 Concept Mastery.....	15
2.5 Global Warming.....	16
2.6 Relevant Research.....	19
CHAPTER III RESEARCH METHODOLOGY.....	21
3.1 Research Method.....	21

3.2 Research Design.....	21
3.3 Population and Sample.....	22
3.4 Operational Definition.....	22
3.5 Assumption.....	24
3.6 Hypothesis.....	24
3.7 Research Instrument.....	24
3.8 Data Analysis.....	31
3.9 Research Procedure.....	33
3.10 Research Flowchart.....	34
CHAPTER IV RESULT AND DISCUSSION.....	36
4.1 Students' Creativity in Learning Global Warming.....	36
4.2 Students' Writing Skill in Learning Global Warming.....	55
4.3 Students' Concept Mastery in Learning Global Warming.....	81
CHAPTER V CONCLUSION, IMPLICATION, AND RECOMMENDATION.....	85
5.1 Conclusion.....	85
5.2 Implication.....	85
5.3 Recommendation.....	86
REFERENCES.....	88
APPENDIX A.....	92
Appendix A.1 Creativity Rubric.....	93
Appendix A.2 Writing Skills Rubric.....	95
Appendix A.3 Cognitive Test.....	98
Appendix A.4 Validation Form.....	161
APPENDIX B.....	165
Appendix B.1 Lesson Plan.....	166
APPENDIX C.....	213

Appendix C.1 The Recapitulation of Students' Creativity.....	213
Appendix C.2 The Recapitulation of Students' Writing Skills.....	216
Appendix C.3 The Recapitulation of Students' Concept Mastery.....	220
Appendix C.4 The Recapitulation of Statistical Test.....	221
Appendix C.5 The Recapitulation of Digital Comic.....	226
Appendix C.6 The Recapitulation of Creativity and Writing Skills in Pre-Test.....	237
Appendix C.7 The Recapitulation of Creativity and Writing Skills in Post-Test.....	241
APPENDIX D.....	246
Appendix D.1 Research Permission Letter.....	247
APPENDIX E.....	249
Appendix E.1 Documentation.....	250
Appendix E.2 Research Paper Review Form.....	253
Appendix E.3 Autobiography.....	254

## LIST OF TABLES

Table 2.1 The Topic and Basic Competencies.....	16
Table 3.1 Pre-test and Post-test Design.....	21
Table 3.2 Creativity Evaluation Grid.....	25
Table 3.3 Writing Skills Assessment Grid.....	27
Table 3.4 Blueprint of Objective Test Item (Before Revision).....	30
Table 3.5 Blueprint of Objective Test Item (After Revision).....	30
Table 3.6 Validity Result.....	31
Table 3.7 Validity Interpretation.....	32
Table 3.8 Reliability Result.....	33
Table 3.9 Reliability Interpretation.....	33
Table 4.1 Statistical Test on Students' Creativity.....	37
Table 4.2 N-gain Score on Students' Creativity.....	38
Table 4.3 Students' Creativity on Indicator "Fluency".....	39
Table 4.4 Students' Creativity on Indicator "Content".....	43
Table 4.5 Students' Creativity on Indicator "Authenticity".....	46
Table 4.6 Students' Creativity on Indicator "Design/Detail".....	49
Table 4.7 Students' Creativity on Indicator "Elaboration".....	52
Table 4.8 Statistical Test on Students' Writing Skills.....	56
Table 4.9 N-gain Score on Students' Writing Skills.....	57
Table 4.10 Students' Writing Skill on Sub-Scale "Theme".....	59
Table 4.11 Students' Writing Skill on Sub-Scale "Background".....	61
Table 4.12 Students' Writing Skill on Sub-Scale "Conflict".....	63
Table 4.13 Students' Writing Skill on Sub-Scale "Plot".....	66
Table 4.14 Students' Writing Skill on Sub-Scale "Content".....	68

Table 4.15 Students' Writing Skill on Sub-Scale "Organization".....	71
Table 4.16 Students' Writing Skill on Sub-Scale "Style: Structure and Diction Choice".....	74
Table 4.17 Students' Writing Skill on Sub-Scale "Spelling, Punctuation, Capitalization".....	77
Table 4.18 Analysis of Statistical Test on Students' Concept Mastery.....	81
Table 4.19 N-gain Score on Students' Concept Mastery per Student.....	82
Table 4.20 N-gain on Students' Concept Mastery per Cognitive Level.....	82
Table 4.21 N-gain on Students' Concept Mastery per Sub-Topic.....	83

## LIST OF FIGURES

Figure 3.1 Research Procedure Flowcharts.....	35
Figure 4.1 The Highest Fluency Score in The First Comic.....	41
Figure 4.2 The Highest Fluency Score in The Second Comic.....	41
Figure 4.3 The Highest Fluency Score in The Third Comic.....	42
Figure 4.4 The Highest Content Score in The First Comic.....	44
Figure 4.5 The Highest Content Score in The Second Comic.....	45
Figure 4.6 The Highest Content Score in The Third Comic.....	45
Figure 4.7 The Highest Authenticity Score in The Second Comic.....	47
Figure 4.8 The Highest Authenticity Score in The Second Comic.....	48
Figure 4.9 The Highest Authenticity Score in The Third Comic.....	48
Figure 4.10 The Highest Design/Detail Score in The First Comic.....	50
Figure 4.11 The Highest Design/Detail Score in The Second Comic.....	51
Figure 4.12 The Highest Design/Detail Score in The Second Comic.....	51
Figure 4.13 The Highest Elaboration Score in The First Comic.....	53
Figure 4.14 The Highest Elaboration Score in The Second Comic.....	53
Figure 4.15 The Highest Elaboration Score in The Third Comic.....	54
Figure 4.16 Average of Creativity per Comic.....	54
Figure 4.17 The Highest Theme Score in The First Comic.....	60
Figure 4.18 The Highest Theme Score in The Second Comic.....	60
Figure 4.19 The Highest Theme Score in The Third Comic.....	61
Figure 4.20 The Highest Background Score in The First Comic.....	62
Figure 4.21 The Highest Background Score in The Second Comic.....	62
Figure 4.22 The Highest Background Score in The Third Comic.....	63
Figure 4.23 The Highest Conflict Score in The First Comic.....	64
Figure 4.24 The Highest Conflict Score in The Second Comic.....	65

Figure 4.25 The Highest Conflict Score in The Third Comic.....	65
Figure 4.26 The Highest Plot Score in The First Comic.....	67
Figure 4.27 The Highest Plot Score in The Second Comic.....	67
Figure 4.28 The Highest Plot Score in The Third Comic.....	68
Figure 4.29 The Highest Content Score in The First Comic.....	70
Figure 4.30 The Highest Content Score in The Second Comic.....	70
Figure 4.31 The Highest Content Score in The Third Comic.....	71
Figure 4.32 The Highest Organization Score in The First Comic.....	72
Figure 4.33 The Highest Organization Score in The Second Comic.....	73
Figure 4.34 The Highest Organization Score in The Third Comic.....	73
Figure 4.35 The Highest Style: Structure and Diction Choice Score in The First Comic.....	75
Figure 4.36 The Highest Style: Structure and Diction Choice Score in The Second Comic.....	76
Figure 4.37 The Highest Style: Structure and Diction Choice Score in The Third Comic.....	76
Figure 4.38 The Highest Spelling, Punctuation, Capitalization Score in The First Comic.....	78
Figure 4.39 The Highest Spelling, Punctuation, Capitalization Score in The Second Comic.....	79
Figure 4.40 The Highest Spelling, Punctuation, Capitalization Score in The Third Comic.....	79
Figure 4.41 Average Total Score per Comic.....	80

## REFERENCES

- Ali, Mohammad & Mohammad Asrori. (2009). *Psikologi Remaja*. Jakarta: Bumi Aksara.
- Ali, S. H., Carr, P. A., & Ruit, K. G. (2016). *Validity and reliability of scores obtained on multiple-choice questions: Why functioning distractors matter*. *Journal of the Scholarship of Teaching and Learning*, 16(1), 1–14. <https://doi.org/10.14434/josotl.v16i1.19106>
- Anderson, L. W., & Krathwohl, D.R. (2001). *A Taxonomy for Learning, Teaching, and Assessing; A revision of Bloom's Taxonomy of Education Objectives*. New York: Addison Wesley Lonman Inc.
- Artadi, F. (2013). *Studi Jejak Karbon dari Aktivitas di Kampus Fakultas Teknik Universitas Indonesia*. Depok: UI Press.
- Awanthi, M.G.G & C.M Navaratne. (2018). *Carbon Footprint of an Organization: a Tool for Monitoring Impacts on Global Warming*. *Procedia Engineering*, 212. 729-735.
- B Bağçeci, M Şenel. (2019). *Development of Creative Thinking Skills of Students*.
- Basadur, M., Gelade, G., & Basadur, T. (2014). *Creative problem-solving process styles, cognitive work demands, and organizational adaptability*. *Journal of Applied Behavioral Science*, 50(1).
- C. Poluakan, A. F. (2019). Implementation of the Revised Bloom Taxonomy in Assesment of Physics Learning. *academia.edu*, 4(2).
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education (6th ed.)*. London, New York: Routledge Falmer
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (4th edition)*.
- Cropley, A. J. (1997). *More ways than one: Fostering creativity*. Greenwich: Ablex Publishing Corporation.
- Daryanto. (2011). *Media Pembelajaran*. Bandung: Satu Nusa
- Detjen, J. (1995). *The media's role in science education*.
- Dogruera, N., Eyyamb, R., & Menevisab, I. (2011). *The use of the internet for educational purposes*. *Procedia - Social and Behavioral Sciences*.
- Falk, J.H., Storksdieck, M. & Dierking, L.D. (2007). *Investigating public science interest and understanding: Evidence for the importance of free-choice*

*learning.*

- Fasha, L., & Ruqoyyah, S. (2020). *Improving Scientific Creative-Thinking Ability of Primary School Students through CRH Learning Model*. *Mimbar Sekolah Dasar*, 7(1), 1-15. doi: <https://doi.org/10.53400/mimbar-sd.v7i1.20868>
- Fazylova, S. – Rusol, I. (2016). *Development of Creativity in Schoolchildren through Art*. *Czech-Polish Historical and Pedagogical Journal*
- Fraenkel, J.R., Wallen, N.E., & Hyun H. (2011). *How to Design and Evaluate Research in Education 8th Edition*. San Fransisco: Mc Graw Hill.
- Gomez, J. G. (2007). What Do We Know About Creativity? *The Journal of Effective Teaching*, 7(1), 31-43.
- Gumelar, M.S. (2011). *Comic Making*. Jakarta: PT Indeks.
- Hake, Richard R. (1998). *Interactive Engagement Versus Traditional Methods: A sixthousand-student Survey of Mechanics Test Data for Introductory Physics Course*. *Am. J. Phys.* 66 (1), January, 1998.
- Hannah, L. (2015). *Climate Change Biology, Second Edition*.
- Herdi, H. (2015). *An Analysis on Factors Influencing The Students' Writing Skill*. *ELT-Lectura*, 2(2). <https://doi.org/10.31849/elt-lectura.v2i2.465>
- Hidayanti, WI, Rochintaniawati, D., & Agustin, RR (2018). *Pengaruh Brainstorming terhadap Keterampilan Berpikir Kreatif Siswa dalam Pembelajaran Gizi*. *Jurnal Pembelajaran Sains*, 1 (2).
- Horng, R.Y., Wang, C.W, Shyr, Y.H., Lee, P.Y., & Wang, Y.M. (2013). *Construction of an imagination test based on theory of conceptual combination*. *Psychological Testing*, 60(4).
- Hosler, J., & Boomer, K. . (2011). *Are Comic Books an Effective Way to Engage Nonmajors in Learning and Appreciating Science? CBE Life Science Education*. *International Forum for Education through Journal Writing* 12 (1).
- Istiq'faroh, N., Suhardi S., Mustadi A., & Ahdhianto E. (2020). *Improving Elementary School Students' Creativity and Writing Skills Through Digital Comics*. doi:10.17051/ilkonline.2020.689661
- Mueller, J. (2008). *Authentic Assessment*. Tool box, Nort Central College <http://www.noerl.edu/naperville>, <http://jonathan.mueller.faculty.noctrl.edu/toolbox/index>.

- Jarwan, F. (2008). *Giftedness and Talents*. Amman: Dar Al-fkir. Jordan.
- Jazuli, A. (2009). *Berfikir Kreatif Dalam Kemampuan Komunikasi Matematika*.
- Jordan, R. R. (1977). *English for Academic Purpose*. Cambridge University Press
- Kim, M., Roh & Cho. 2016. *Creativity of Gifted Student in an Integrated Math-Science Instruction*. Journal of Skill and Creativity. Vol.19.
- Lee, C. S., Huggins, A. C., & Therriault, D. J. (2014). *A measure of creativity or Intelligence? Examining internal and external structure validity evidence of the Remote Associates Test*. Psychology of Aesthetics, Creativity, and the Arts, 8(4).
- Levine, M. D. (1987). *Development Variation and Learning Disorders Second Edition*.
- Manchon, Rosa M. *Learning-to-Write and Writing-to-Learn in an Additional Language*, (Amsterdam: John Benjamins Publishing Company, 2011).
- McCloud, S. (2006). *Making Comics*. Northampton MA: Kitchen Sink Press Inc.
- Munandar, Utami. (2009). *Pengembangan Kreativitas Anak Berbakat*. Jakarta: Rineka Cipta.
- Prabhaker M, C. M. (2019). Descriptive Statistics and Normality Tests for Statistical Data. *Ann Card Anaesth*, 22(1), 67-72. doi:10.4103/aca.ACA\_157\_18
- Rahardjo, B. (2002). *Memahami teknologi informasi*.
- Ramlan, Mohammad. (2002). *Pemanasan Global (Global Warming)*. Jurnal Teknologi Lingkungan. Volume 3. Nomor 1. Hal 30-32.
- Rivai, Ahmad & Nana Sudjana. (2007). *Media Pengajaran*. Bandung : Sinar Baru Algensindo
- Riwanto, M. A., & Wulandari, M. P. (2018). *Efektivitas Penggunaan Media Komik Digital (Cartoon Story Maker) dalam Pembelajaran Tema Selalu Berhemat Energi*. Pancar, 2(1), 14–18. <https://ejournal.unugha.ac.id/index.php/pancar/article/viewFile/195/160>
- Ruddell, Martha Rapp. (2005). *Teaching Content Reading and Writing*, (New Jersey: Willey Jossey-Bass Education)
- Sadiman, Arief (2010). *Media Pendidikan Pengertian Pengembangan dan Pemanfaatannya*. Jakarta :Rajawali Pers.

- Shadely, Hasan. (1990). *Ensiklopedia Nasional Indonesia*. Jakarta: Ichran baru-Van Hoeve.
- Sidik, Ijang Permana. (2013). *Efektivitas Media Komik Digital Terhadap Peningkatan Hasil Belajar Siswa Pada Mata Pelajaran Sejarah*.
- Slameto. (2010). *Belajar dan Faktor-Faktor yang Mempengaruhi*. Jakarta: Rineka Cipta.
- Smith, D. M. (2018). *Statistical Analysis*. Edinburgh, Scotland: The Winchelsea Press, Drumlin Security Ltd, Edinburgh.
- Suparno & Mohamad Yunus. (2008). *Keterampilan Dasar Menulis*. Jakarta: Universitas Terbuka.
- Thompkins, G. E., & Hoskisson, K. (1995). *Language Art: Content and teaching strategies*. United State of America: Precentice-Hall, Inc.
- Trimo. (1997). *Media Pendidikan*. Jakarta: Depdikbud
- Weisberg, Robert W. 2006. *Creativity: Understanding Innovation in Problem Solving, Science, Invention and the Art*. USA: John Willey & Sons, Inc.
- Widodo, W., Rachmadiarti, F., & Hidayati, S. N. (2017). *Buku Guru: Ilmu Pengetahuan Alam Kelas VII*. Pusat Kurikulum dan Perbukuan, Balitbang, Kemendikbud.
- Wongwuttiwat, J. & Winley, G. K. (2019). *An exploration of creativity traits among ICT lecturers and students in Thailand*.